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## EDITORIAL

### WHY WRITE

LESLIE E. DAUGHERTY, M.D.

"The writer does the most who gives the reader the most knowledge and takes from him the least time."

—Sidney Smith

We had the good fortune to attend the Annual Session of the American Medical Writers' Association, where were gathered as a composite group, editors, free lance writers, feature story writers, lay health writers and writers for house organs.

Never have I seen a more enthusiastic group searching for better ways to speak the truth, in a more understandable way, that physicians and the public at large may learn how to live longer, happier and healthier.

From coast to coast and the Great Lakes to the Gulf, men and women became just students, again learning with the eagerness of a child in a kindergarten, what makes a Medical Journal tick and what puts scientific discoveries across.

What did they do? From copy to galley proof through composition, style, tone, mode and with an accent of Shakesperian drama, emphasis on simplicity in word and language was stressed, to better convey on paper the spoken word in the simplest and most effective manner.

Thus; those of us who might gain new knowledge with the least effort in the shortest possible time, were not to write two words when one would do.

With five guide posts, namely; what, when, where, why and how, let's take a look. Whom do you wish to reach? If you think you have something you ought to tell another physician, it most likely would be interesting and valuable to a lot of physicians. Tell it to him specifically on paper, as though you were talking to him directly.

You know he is a very busy man and so you wouldn't waste his time and you get right to the point. What is the point?

The great Voltaire, in writing to his friend, apologized for such a lengthy letter, saying "If I had more time, I would have written you a shorter letter."

Ideas on paper can be no greater than their creator. Readers have one interest; namely, self interest. What interests you? If so, it most likely interests him, but this is not all.

Did it save your patient's life? Did it stop him from worrying? I once knew a physician who told me and I quote, "Each patient is a new experience for me." Are you as glad to see him, as he is glad to see you? Well, then write his case history. Read it before your Society. Have it published, if you can. You and your good work will be known to thousands. Write, rewrite, delete, then cut in half. Illustrate it with pictures, or a drawing, if that will make it clearer or more understandable.

An old Chinese proverb says: A picture is worth a thousand words.

*Seven Washington Street  
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## Scientific Papers

### PROGRESS IN ELECTRO-CONVULSIVE THERAPY\*

FRANK J. AYD, JR., M.D.

In 1938 Cerletti and Bini introduced electro-convulsive therapy† for the treatment of certain psychiatric disturbances. Since then it has been demonstrated that ECT is a safe, valuable addition to our therapeutic armamentarium. Recent modifications have increased its safety, its therapeutic effectiveness and have broadened its scope of application. Last year in this country alone, an estimated minimum of 150,000 treatments per day were administered in psychiatric institutions, in general hospitals and in psychiatrist's offices (1).

When ECT was introduced, it was feared that this measure was drastic, likely to produce serious complications and even fatalities. Hence the initial list of contra-indications to ECT was quite lengthy. It included cardiovascular disease, hypertension, neurological disease, tuberculosis, musculo-skeletal disease, pregnancy, advanced age, debilitation and cerebral neoplasms.

The experience of the past decade has demonstrated that initially we were too conservative, most probably because we were more impressed with the external manifestations of the convulsive reaction than we were with the internal physiologic alterations which take place with a seizure. We know now that patients with a history of angina or a previous coronary occlusion may be treated with ECT (2). The decision as to whether or not a patient with cardiovascular disease should be treated with ECT should not rest in the hands of the internist or the cardiologist who is unfamiliar with the effect of

\* Presented at the One Hundred and Fifty-sixth Annual Meeting of the Medical and Chirurgical Faculty of the State of Maryland, on Tuesday morning, April 27, 1954, in Osler Hall, 1211 Cathedral Street, Baltimore 1, Maryland.

† Hereinafter referred to as ECT.

convulsive therapy. It is the psychiatrist on the basis of his knowledge of the psychosis to be treated and his knowledge of ECT who must determine the advisability of treatment.

In the early days of ECT, patients who had systolic pressures above 180 were refused treatment. It was feared that the seizure would elevate the blood pressure causing an undue strain upon the cardiovascular system or upon the cerebral blood vessels. Today, patients with systolic blood pressures of 250 plus are being treated with ECT without any adverse effects. In fact, it has been observed that in a large number of hypertensive patients there is a reduction in their systolic pressure concomitant with the improvement in their mental status as a result of ECT. This suggests that in some patients at least, the hypertension was probably due to the same hypothalamic disturbance which was causing the agitated mental state (3).

Patients with various neurological conditions such as cerebral arteriosclerosis, hemiplegia, parkinsonism, multiple sclerosis, and epilepsy have received thousands of treatments without any adverse effect on their physical disability. Actually, the improved mental state of these patients following ECT has made them more cooperative with their medical treatment, resulting in a general improvement in their condition.

There are physicians who are of the erroneous opinion that ECT should not be administered to patients with tuberculosis. Their fear that latent tubercular processes would be aggravated or that active infections would be spread as a result of a convulsive seizure have not been substantiated by clinical experience. Numerous ex-

cellent reports have appeared in the psychiatric literature indicating that not only is it safe to administer ECT to a tubercular patient, but that at times this has been a life-saving measure (4). In many patients ECT has produced an improvement not only in their mental status but also in their physical condition because of their renewed ability to cooperate with a treatment program for their tuberculosis.

The presence of a fracture, osteoporosis or other orthopedic disorders in a patient requiring ECT is not necessarily a contraindication to treatment. This has been true since the introduction of techniques to modify the convulsive seizure either by the use of curare-like drugs or by the newer electro-stimulators which permit the production of softer generalized seizures or of localized seizures.

Once, concern was expressed over the administration of ECT to a pregnant patient. It was felt that a treatment would have an adverse effect upon the pregnancy or upon the fetus. Patients in every trimester of pregnancy have been treated with ECT without altering the course of the pregnancy (5). Follow up studies of children who were in utero while their mother was receiving ECT have not disclosed any physical or psychological defect which could be attributed to the convulsive treatment. This correlates well with the experience of epileptologists who report that the seizures of an epileptic do not have an adverse effect on pregnancy or on the fetus.

Advancing age brings with it a myriad of physical disorders. For this reason, it was originally felt that the poorest candidates for ECT were aged patients. Surprisingly, some of the best results with ECT have been obtained in these patients who withstand ECT even better than the younger so-called physically healthier patient. As a matter of fact, the high recovery rate with ECT in elderly patients has aroused a new interest in the question of the diagnosis and the etiology of mental illness of advanced age. It is apparent now that other factors are involved

in the psychosis of old age than strictly organic changes. Many patients formerly diagnosed as psychosis with cerebral arteriosclerosis or as senile psychosis were actually suffering with an affective psychosis usually of the manic-depressive type. These patients are now treated in the office, make satisfactory recoveries and are enabled to live happily at home with their families.

The most distressing psychological complication to ECT is the occurrence of anxiety. This reaction occurs in certain patients even while the depression or other psychotic manifestations are being relieved by ECT. Anxiety may be provoked by the first treatment but usually in susceptible patients does not appear until after several treatments have been administered. The intensity of this anxiety may vary from a mild anxious aversion to the treatments, to a state of severely maniacal delirious excitement characterized by post-shock organoid confusion and uncontrollable aggressive and destructive outbursts (6). The more troublesome the anxiety is to the patient the more he will resist taking treatment. Build-up of anxiety has been the most important single cause for failures with ECT and for discontinuance of treatment by the ambulatory patient.

Compression fractures of vertebra, particularly the fourth and fifth thoracic vertebrae, have been publicized as a frequent complication of ECT. Numerous studies of this problem have led to the following important conclusions: Compression fracture of a vertebra is an unavoidable complication of ECT. It occurs in less than 5% of the patients treated. The occurrence of a compression fracture should not interfere with the continuation of treatment. The majority of these fractures are asymptomatic and inconsequential. No special treatment is indicated aside from analgesics and some bed rest when pain is associated with the fracture. Follow-up studies, one to ten years after a compression fracture as a result of ECT have not disclosed a single patient who is having any trouble which could be attributed to the compression fracture (7).

Dislocations and fractures of the long bones have occurred in a small number of patients receiving ECT. The incidence of these complications is infinitesimally small.

Fatalities have occurred following ECT. A comprehensive review of the psychiatric literature for the past 15 years reveals less than 60 reported fatalities the world over. It should be noted that some of these reported fatalities have been challenged because the patient died as long as six months after the last treatment (8) because some cases received curare prior to treatment, because in some instances no post mortem studies were done or because only partial autopsies were performed making it extremely difficult to establish any causal connection between a convulsive treatment and the death (9). Most of the fatalities have occurred in patients suffering with cardiovascular disease and most of these patients were known calculated risks before treatments were administered.

Considering the millions of treatments which have been administered in the past sixteen years, it is evident that a fatality associated with ECT is an extremely rare occurrence. When there is a fatality, it is usually in a patient who is a known poor risk but whose mental status is such that the risk is justified.

The complications and undesirable side effects of standard ECT, as well as the failure of some patients to respond to this therapeutic measure, have led to continued research for improved techniques in ECT. Various measures have been tried to avoid compression fractures. These have met with some success. Some therapists utilize the intravenous administration of a barbiturate such as sodium surital or sodium pentothal prior to the treatment to soften the muscular contractions (10). Most widely used for softening the convulsion and thereby reducing the complications has been the administration of curare-like drugs just prior to the treatment (11). Although these curare-like preparations have successfully reduced the intensity of the muscular contractions, they have not been without danger, caus-

ing at times severe respiratory embarrassment. A recent preparation, Anectine, is being heralded as safe and free from serious side effects. It is being used extensively in some treatment centers and their initial reports indicate that this drug is superior to any of its predecessors.

Attempts have been made to modify the severity of the muscular contraction associated with the seizure by the use of the Glissando technique. With this method the current is raised slowly so that the patient literally slides into a convulsion. Although, externally it appears softer and therefore safer than the dramatic tonic contraction of the grand mal convulsion, the seizure induced by the Glissando technique has caused compression fractures. Another technique utilizing uni-directional current has been devised permitting focal stimulation and uni-lateral convulsions which have further reduced the orthopedic complications associated with ECT.

The most important single factor in avoiding failures with ECT is the proper selection of patients for therapy. Greater accuracy in patient selection is now possible because of the introduction of the Funkenstein test (12) (Figures 1 and 2). This test measures the reactivity of the sympathetic and para-sympathetic divisions of the autonomic nervous system. The patient is made to rest in a prone position until a basal blood pressure is obtained. Ten mgm. of Mecholyl are then given intramuscularly and the systolic blood pressure is recorded every 30 seconds for five minutes and again at 7, 10, 15, 20, 25, and 30 minutes.

The blood pressure response to Mecholyl varies with the clinical condition of the patient. In the normal individual there is a brief drop in blood pressure with a return to the basal pressure within 10 minutes. In patients suffering with manic-depressive psychosis, involutional melancholia and certain forms of schizophrenia, there is an enhanced and prolonged drop in blood pressure with failure to return to the baseline within 20 minutes to a half hour. If this particular reaction is accompanied either by anxiety or

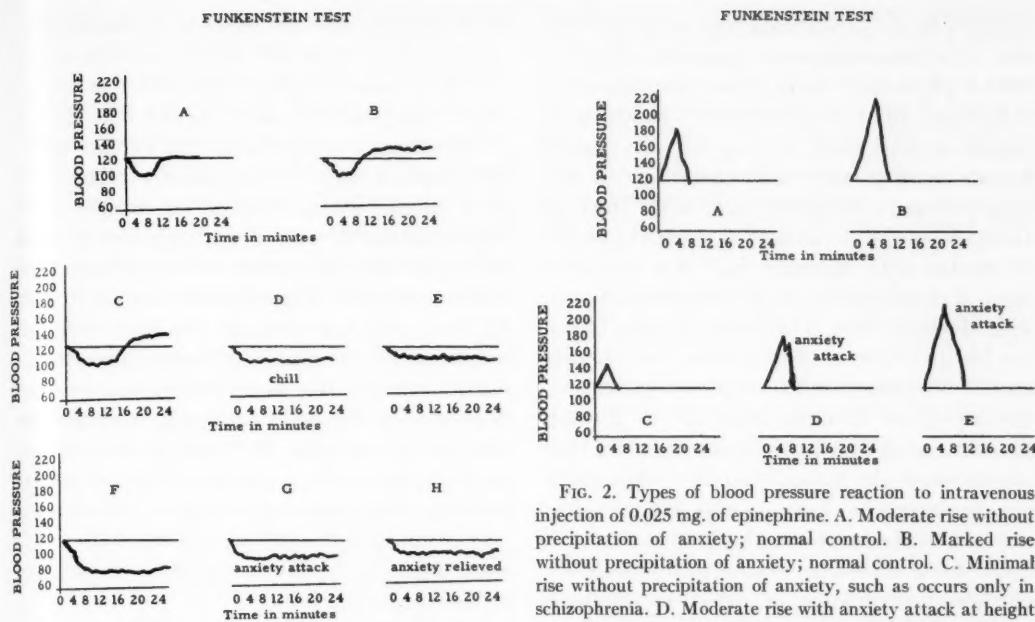


FIG. 1. Types of blood pressure reaction to intramuscular injection of 10 mgm. of Mecholyl. A. Normal control. Homeostasis restored within ten minutes. B and C. Rebound with overshooting preinjection level, such as found in aggressive psychopathic personality, obsessive compulsive neurosis, and in certain cases of schizophrenia. D, E, F, G, and H. Prolonged fall of blood pressure with failure to reestablish homeostasis within 25 minutes, such as found particularly in manic depressive or involutional depressions, and also in schizoaffective psychosis and certain schizophrenics. (Modified from Alexander).

a chill or both the patient will respond to ECT irrespective of the psychiatric diagnosis.

Other patients react to Mecholyl with an immediate overshooting of the blood pressure, while others initially have a drop in blood pressure and then overshoot the basal pressure later. This type of blood pressure response is seen in aggressive psychopathic personalities, certain schizophrenics and obsessive compulsive neuroses.

The other part of the Funkenstein test consists of the intravenous administration of 0.025 mgm. of Epinephrine following which the systolic blood pressure is recorded every 30 seconds until it returns to the basal pressure. Patients

FIG. 2. Types of blood pressure reaction to intravenous injection of 0.025 mg. of epinephrine. A. Moderate rise without precipitation of anxiety; normal control. B. Marked rise without precipitation of anxiety; normal control. C. Minimal rise without precipitation of anxiety, such as occurs only in schizophrenia. D. Moderate rise with anxiety attack at height of reaction such as may occur in various types of schizophrenia, psychoneurosis, manic depressive psychosis, and involutional psychosis. E. Marked rise with anxiety at height of reaction such as may occur in various types of psychoneurosis, manic depressive psychosis, involutional psychosis, and schizophrenia. (Modified from Alexander).

react with one of three types of blood pressure response to the intravenous injection of Epinephrine. A small number of patients have an inadequate response to the intravenous Epinephrine. Their systolic blood pressure may rise only 20 mm. Hg. This type of blood pressure reaction is found only in patients suffering with schizophrenia. Other patients have a moderate or a marked elevation of systolic blood pressure. Actually the height of the blood pressure rise is not as important as the clinical response of the patient to the intravenous Epinephrine. If the injection is accompanied by anxiety, the patient has heightened sympathetic excitability and his condition will be aggravated by ECT. On the other hand such patients respond satisfactorily to non-convulsive electrostimulation or to insulin coma therapy.

The Funkenstein test has been a most valuable

addition to the armamentarium of the psychiatrist. It indicates that many psychiatric disorders have a physiologic basis. Even more important it indicates the type of treatment to which the patient is most likely to respond. If a patient has no anxiety with Epinephrine and a prolonged drop of blood pressure with Mecholyl along with a chill or anxiety that patient should be treated with standard ECT. On the other hand, if in addition to the drop in blood pressure with Mecholyl there is associated anxiety following the injection of Epinephrine, that patient should be treated with combined convulsive-non-convulsive therapy. Standard ECT would aggravate such a patient's illness since this therapy increases the patient's anxiety while relieving the depression. Patients who have a normal response to Mecholyl but who have anxiety with Epinephrine should be treated with non-convulsive electrostimulation or sub-coma insulin or insulin coma therapy depending upon the severity of the patient's clinical condition. Patients who have anxiety with Epinephrine as well as overshooting with Mecholyl respond best to insulin coma therapy.

Even before the introduction of the Funkenstein test the therapeutic results with ECT were most gratifying particularly in the affective disorders. Patients suffering with a manic-depressive reaction of the depressed type recover more quickly when treated with ECT. Manic psychosis likewise respond more quickly to ECT than to any other treatment. The involutional psychoses have responded more satisfactorily to ECT than any other clinical condition. Fully 95% of the patients suffering with this disorder now recover quickly with ECT. Schizophrenics, particularly catatonics and paranoid, if treated in the early stages of their psychosis, have a greater chance of recovery with ECT or insulin coma therapy than they have ever had before in the history of psychiatry. Affective disorders in neurotic patients also respond very satisfactorily to ECT (13).

When one considers that in the era before

ECT patients who developed a depressive psychosis were ill from six months to three years, and often would require confinement in a psychiatric hospital because of the potential danger of suicide, as compared with the current situation in which most of these patients treated with ECT recover within three to six months, need hospitalization in only a small number of cases and even then the period of hospitalization is much shorter, it is immediately apparent that ECT has been a tremendous step forward in the treatment of psychiatric illnesses. This therapeutic measure has been to psychiatry what penicillin and the other antibiotics have been to medicine and surgery. ECT and its more recent modifications has been responsible for less mental suffering, more rapid recoveries, a reduction in cost of illness to the patient and has made treatment available to a larger number of patients on an ambulatory basis.

The advantages of ambulatory ECT are many (14). The office of a physician utilizing these therapeutic techniques is well equipped and better prepared for the administration of these treatments than general hospitals whose nurses are inexperienced in ECT. With an armamentarium including non-convulsive therapy, it is possible to offer patients treatment on an ambulatory basis in the early stages of their illness. In recent years a large number of patients have been successfully treated in the office without losing any time from work. These therapeutic techniques instituted early make it possible to avoid hospitalization which spares the patient the stigma of having been in a mental institution. At the same time they have brought the cost of psychiatric treatment in closer proximity to the cost of most other medical and surgical treatment.

Another advantage to the patient has been the trend to treat a greater number of patients with affective disorders in our general hospitals than ever before (15). It has been possible for a number of patients to be treated within their financial means in a general hospital thereby

avoiding the necessity of seeking admission to one of our state institutions.

The economic impact of ECT on the patient and on the reduced cost of state hospital and private hospital care has not been fully appreciated. This reduction in the cost of psychiatric treatment as a result of ECT will probably in time induce Blue Cross and other health insurance agencies to be more willing to include at least the milder mental disturbances under their coverage.

Meanwhile research continues giving promise of even more efficient and safer treatment measures for an even greater number of patients. The advances made with ECT are being improved upon in some of our research centers and these newer attacks on serious problems with which the physician and the psychiatrist must cope offer great promise and hope to all concerned.

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#### REMINDER—HOTEL ROOM RESERVATIONS

#### ANNUAL MEETING—MAY 2, 3, 4, 1956

Rooms have been set aside at the Sheraton Belvedere Hotel for members of the Medical and Chirurgical Faculty and their wives. The Hotel will take your room reservations now. When making your reservation, mention that you will be attending the Annual Meeting of the Faculty.

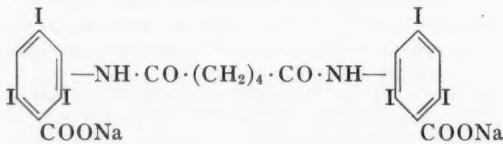
## INTRAVENOUS CHOLECYSTOGRAPHY AND CHOLANGIOGRAPHY\*†

JOHN M. DENNIS, M.D.

Until the past two years there had been no satisfactory non-surgical method for radiographic demonstration of the biliary ducts. The new oral contrast media used for cholecystography—priodax, telepaque and teridax—produce a dense concentration in the gallbladder but fail to opacify the ducts with any degree of consistency. After cholecystectomy these media almost never demonstrate the biliary radicals.

In 1953, a new intravenous contrast medium, Cholografin, was introduced. This new medium affords an intravenous technique for radiographic visualization of the gallbladder and biliary ducts. For the first time, the intra- and extra-hepatic radicals can be outlined after cholecystectomy in approximately seventy-five per cent of the patients and in over ninety per cent of those free of jaundice and severe liver damage<sup>2</sup> (Figs. 1 and 2).

Cholografin is a twenty per cent solution of the disodium salt of N,N'-adipyl-bis-(3 amino-2:4:6 triiodobenzoic acid) with a molecular weight of 1183.35 and an empirical formula of C<sub>20</sub>H<sub>12</sub>O<sub>6</sub>I<sub>6</sub>Na<sub>2</sub>.<sup>5</sup> Its structural formula is



The high iodine content of Cholografin, 64.32 per cent, and the fact that the iodine atoms remain firmly bound in the molecule through-

out the excretion process, give it a high degree of radiopacity.<sup>5</sup>

After intravenous injection, Cholografin is promptly and rapidly excreted by the liver cells with concentration in the bile 30 to 100 times that in the blood. This rapid excretion by the liver permits visualization of the biliary ducts in 10 to 20 minutes after injection. Opacification of the gallbladder begins in approximately one hour but is usually best visualized in about two hours (Fig. 3). No absorption of the Cholografin occurs in the gastro-intestinal tract from which approximately ninety per cent of it is eliminated. Without liver damage only ten per cent or less of this contrast medium is excreted by the kidneys. However, excretion by the kidneys is rapid with the conducting system visualized within 10 minutes (Fig. 4). In those patients with liver damage, it is excreted by the kidneys at the same rate as it would be by a normal liver.

The toxicity of Cholografin is low. Sensitivity reactions are usually mild and transient when this medium is injected slowly. In our experience with fifty patients these reactions have been mild nausea, vomiting and flushing. We have had no respiratory or circulatory collapse or severe reactions characterized by vomiting, boring epigastric pain and dyspnea as reported in a few instances by others.<sup>2, 6</sup>

We have kept no statistics on the percentage of our cases in which the biliary ducts visualized, but Glenn et al.<sup>2</sup> found adequate visualization of the common bile duct in fifty-three of their series of eighty patients (sixty-six per cent) and in twenty-three of thirty patients (seventy-seven per cent) with cholecystectomies. The failure of visualization is usually in those patients with jaundice or impaired liver function.

\* From the Department of Radiology, University Hospital, University of Maryland School of Medicine. Cholografin was partially supplied by E. R. Squibb Company.

† Submitted March 23, 1955 for publication in the MARYLAND STATE MEDICAL JOURNAL.

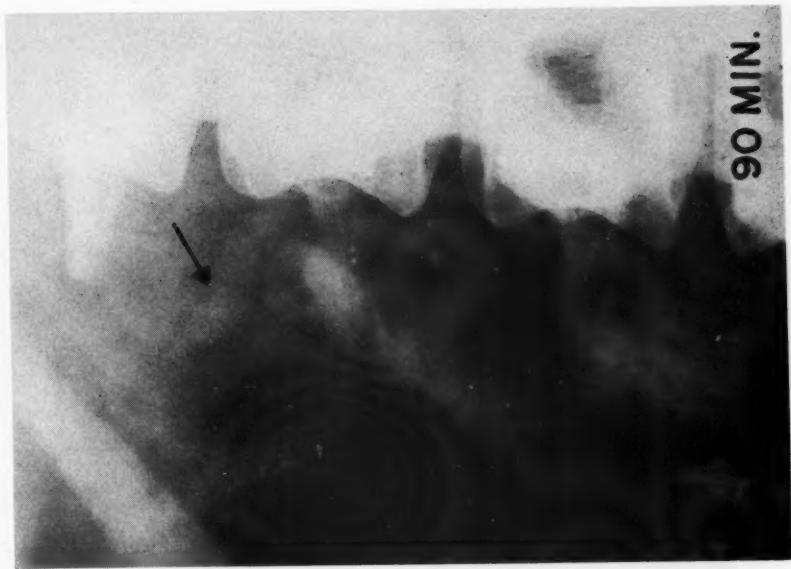


FIG. 2.

FIG. 1. Normal intrahepatic and common bile ducts in a 46 year old female who had a cholecystectomy five months previously.  
FIG. 2. Normal common bile duct (arrow) with opacification of the second portion of the duodenum in a 35 year old female who had a previous cholecystectomy.

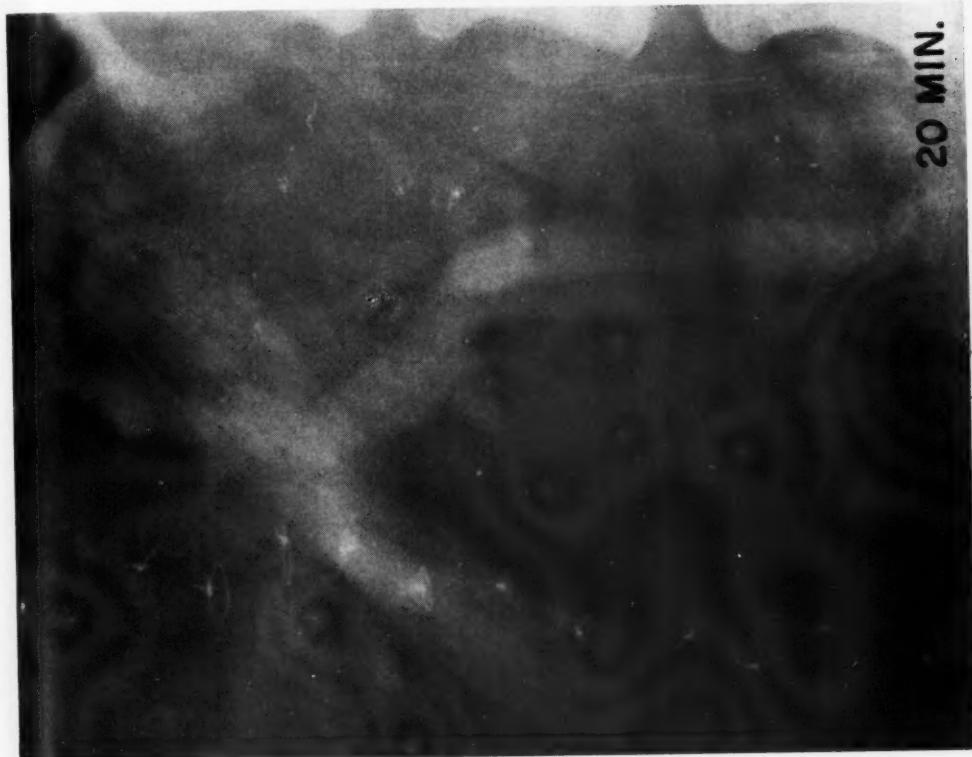


FIG. 1.

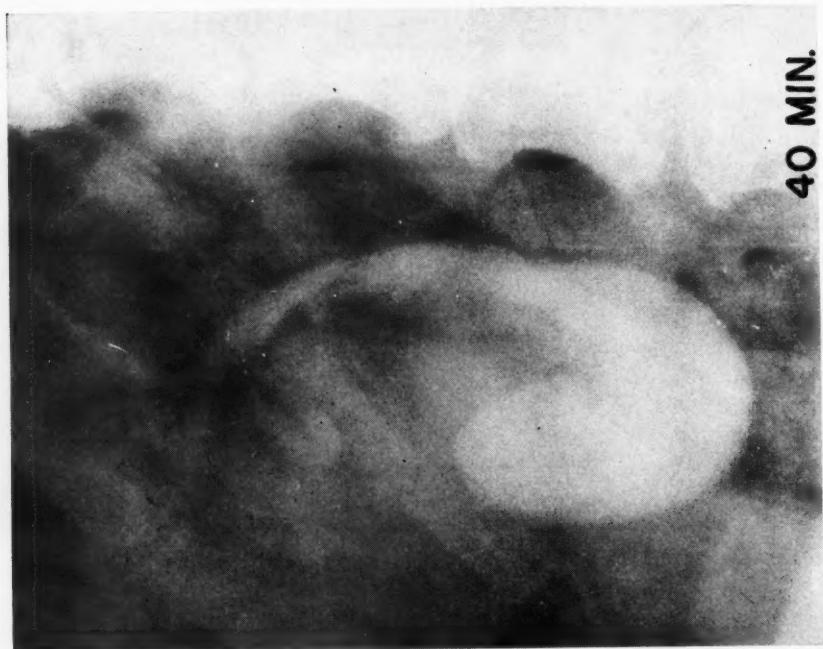


FIG. 3b.

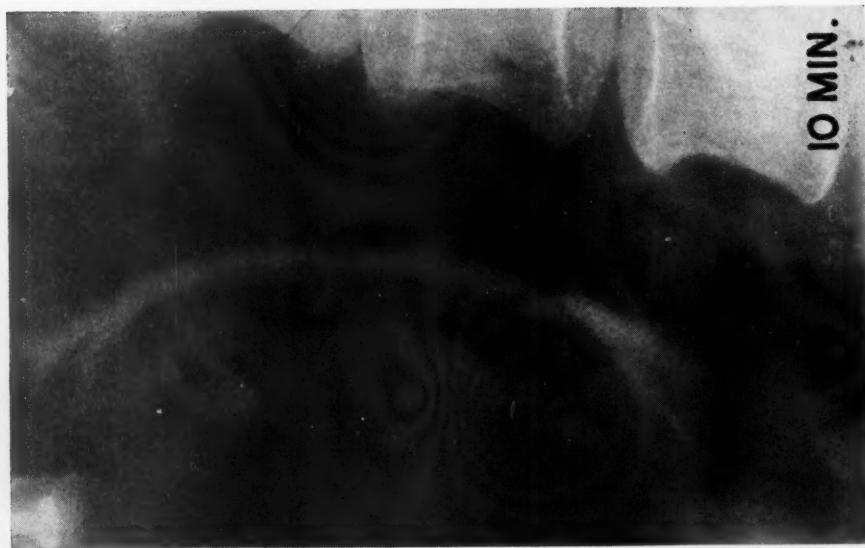


FIG. 3a.

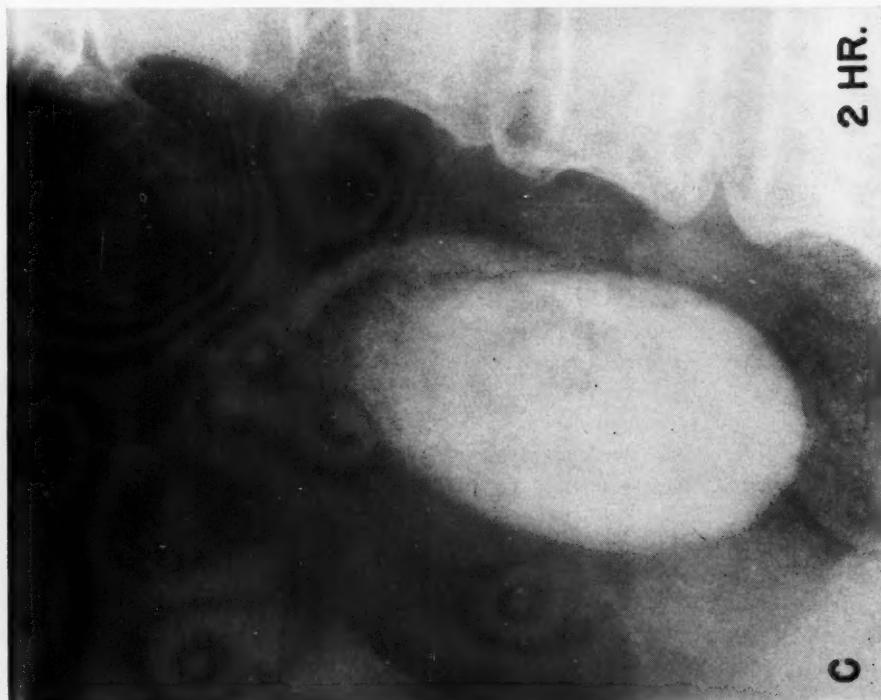


FIG. 3c. Beginning gallbladder opacification in 40 minutes.



FIG. 3. Typical intravenous cholangiogram and cholecystogram in a patient without a cholecystectomy. A. Normal common duct and intrahepatic radicals visualized within 10 minutes. B. Beginning gallbladder opacification in 40 minutes. C. Optimal opacification of the gallbladder in 2 hours. D. Contraction of the gallbladder, with good visualization of the cystic duct (arrow), one hour after ingestion of a fatty meal.



FIG. 4. Rapid excretion of Cholografin by the kidney with dense opacification of the renal pelvis (A) and ureter (B) in 10 minutes.

#### DISCUSSION

The need for a non-operative technique for visualization of the extra-hepatic ducts in those patients with the so-called "post-cholecystectomy syndrome" has long been recognized. In contrast to the oral cholecystographic compounds, which have been unsatisfactory in demonstrating the biliary ducts, Cholografin opacifies these radicals in eighty to ninety per cent of those post-cholecystectomy patients who are free of jaundice and liver damage.<sup>2</sup> Thus the presence of common duct calculi can be rapidly confirmed or excluded (Figs. 5 and 6).

The prompt and rapid excretion of Cholografin by the liver and its high degree of radio-

pacity occasionally permits visualization of a gallbladder which has lost its concentrating power and failed to visualize with oral preparations. Concentration of Cholografin in "non-functional gallbladders" is often sufficient to permit: 1) identification of radiolucent stones in the gallbladder and biliary ducts (Fig. 7), and 2) demonstration of the presence or absence of other common duct pathology, such as obstruction by carcinoma of the head of the pancreas or other extrinsic lesions (Fig. 8).

Radiographic study of the biliary tract of infants and young children was almost an impossibility until the introduction of Cholografin. While the gallbladder can now be demonstrated

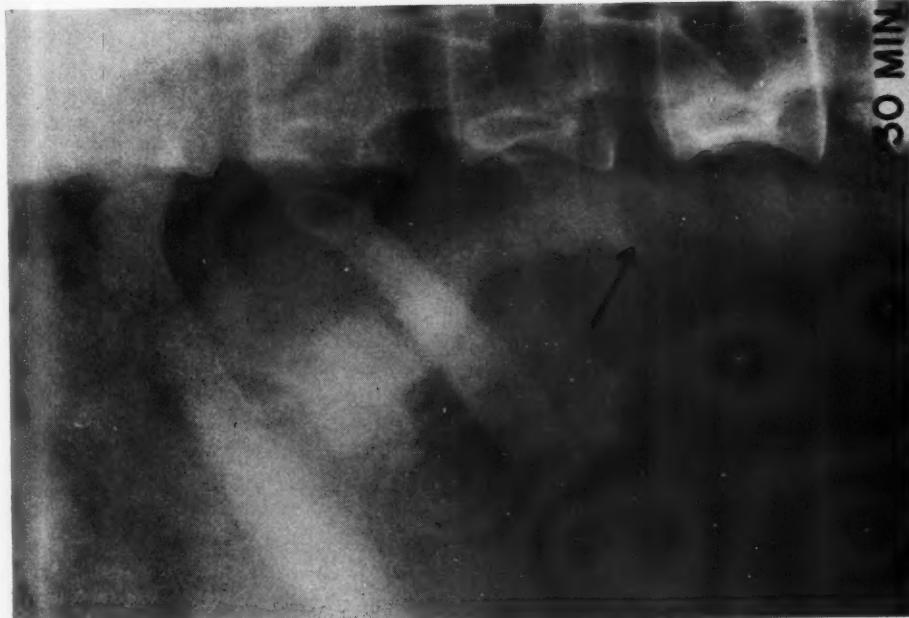


FIG. 5.

FIG. 5. Non-opaque common duct calculus (arrow) producing obstruction and dilatation of the common duct in a 39 year old white female, who had had a cholecystectomy nine years previously and who had experienced recurrent attacks of epigastric pain, nausea and vomiting during the last three years.

FIG. 6. Non-opaque common duct calculus (arrow) apparently producing intermittent obstruction with dilatation of the common duct and intral hepatic calculi in a 70 year old white female who had had a previous cholecystectomy.

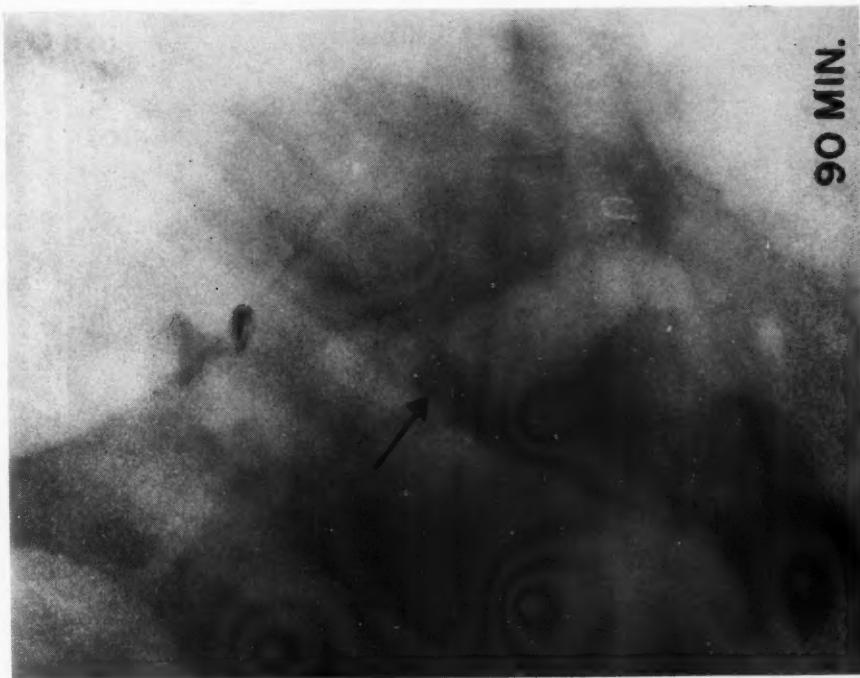


FIG. 6.

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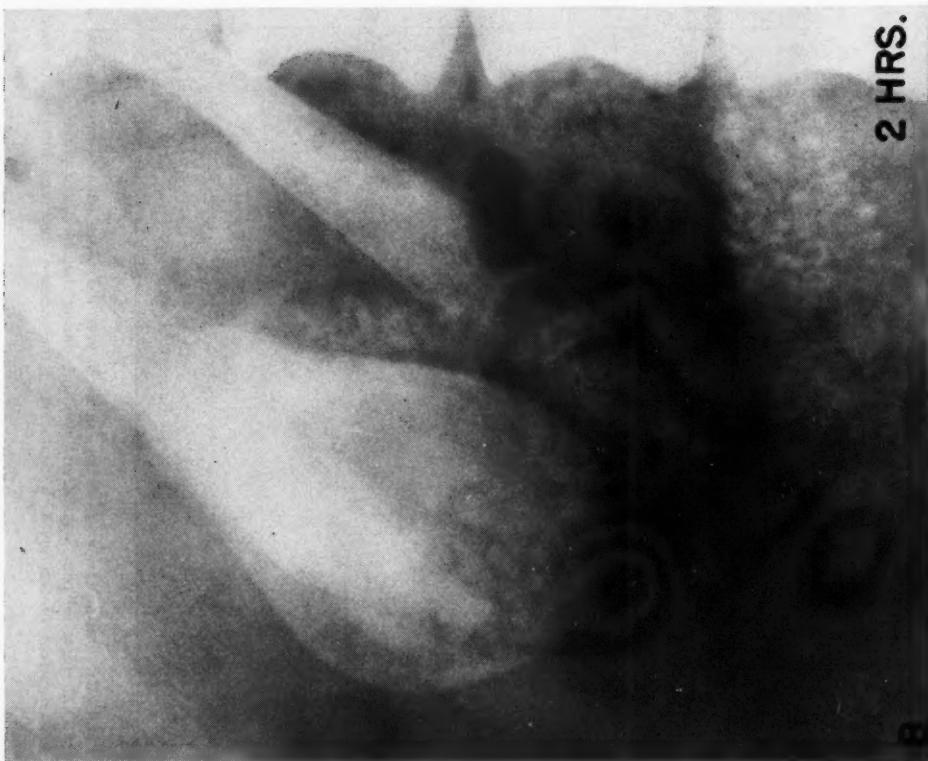


FIG. 7a.

FIG. 7. Cholangiogram opacification of the common bile duct and gallbladder, which previously had been "non-functional" with two doses of telepaque. A. Non-visualization of the gallbladder with telepaque on two occasions. However, several typical partially opaque gallbladder calculi are present. B. Visualization of the common bile duct and gallbladder with Cholografin even though patient was jaundiced. A large non-opaque and several partially opaque calculi are noted within the gallbladder.

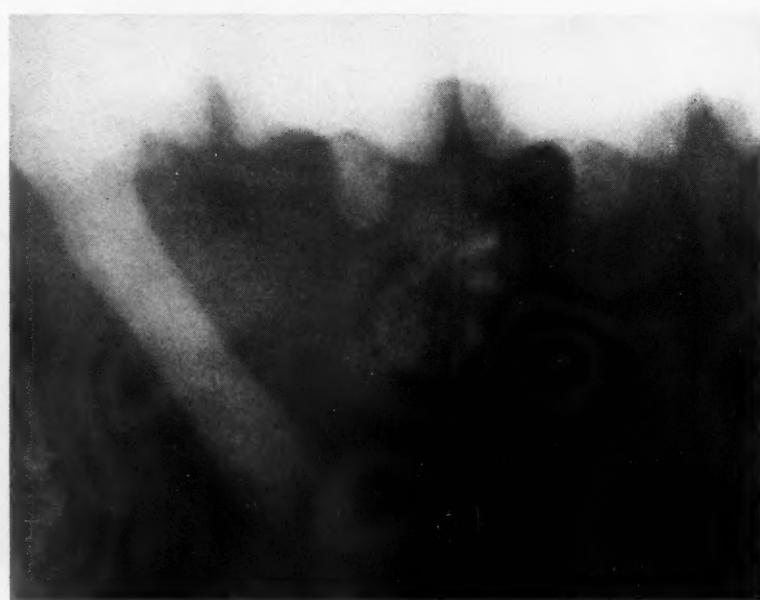


FIG. 7b.

FIG. 7b. Two doses of telepaque. A. Non-visualization of the gallbladder with telepaque on two occasions. However, several typical partially opaque gallbladder calculi are present. B. Visualization of the common bile duct and gallbladder with Cholografin even though patient was jaundiced. A large non-opaque and several partially opaque calculi are noted within the gallbladder.

**2 HRS.**



FIG. 8. Marked dilatation of the common bile duct, without evidence of a calculus, in 61 year old female who had had a cholecystectomy 4 years previously. A stricture of the ampulla of Vater was found at surgery.

in a high percentage of infants, visualization of the ducts has not been as successful. Reichelderfer<sup>4</sup> found the gallbladder adequately visualized in nine of twelve infants under eight months of age, the youngest being one and one-half months old. These gallbladders were visualized in from one-half to four and one-half hours but in none of the twelve cases were the biliary ducts opacified.

While we have had no occasion to use Cholografin in an emergency situation, we believe that it may be a very useful adjunct in establishing a pre-operative diagnosis in those patients who are submitted to surgery with the

diagnosis of "acute abdomen." Since the gallbladder and biliary ducts can usually be adequately visualized in from one to one and one-half hours, pathology in this area can be verified or eliminated while the staff is preparing for the operative procedure.

Glenn et al.<sup>2</sup> recommended this intravenous method of cholangiography as a pre-operative procedure to demonstrate the presence or absence of common duct calculi prior to cholecystectomy. While this procedure, pre-operatively, has merit, it seems unlikely to replace operative or post-operative cholangiography.

## SUMMARY

1. Cholografin affords a highly satisfactory intravenous method for radiographic demonstration of the biliary ducts. For the first time these ducts can be opacified in eighty to ninety per cent of those post-cholecystectomy patients who are free of jaundice and liver damage.

2. The rapid excretion of the Cholografin by the liver and its high degree of radiopacity occasionally permits visualization of a gallbladder which has lost its concentrating power and is "non-functional" with oral preparation.

3. Cholografin affords adequate visualization of the gallbladder in a high percentage of infants and young children.

4. The use of Cholografin as an adjunct in establishing a pre-operative diagnosis in those

patients with an "acute abdomen" and its use in pre-operative cholangiography is discussed.

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## VASOMOTOR RHINITIS IN HYPERTENSION\*

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Difficulty in breathing is a common complaint among patients consulting the otolaryngologist. Recently, however, there has been an unusually large number of hypertensives with this complaint, so that especial attention has been directed towards its causes and treatment. The objective findings are those of vasomotor rhinitis, either alone or in combination with pre-existing structural deformities within the nose.

## Etiologic Factors in Vasomotor Rhinitis

In about 50% of the cases of obstructive breathing, some structural deformity, such as septal spurs and deflections, turbinal hypertrophies, choanal defects, or polyps or other new

growths account for the difficulty. However, in approximately an equal number of cases, no such structural deformity or new growth can be found. The nasal obstruction is the result of undue swelling of the turbinates, especially the lower ones.

In studying these latter cases, some have the typical findings of the allergic state, with pallor and edema of the mucosa, turgescence of the turbinal cavernous tissues, excessive thin serous or mucoid secretion containing relatively large numbers of eosinophiles and positive skin reactions to the offending allergens. These cases, though not always easy to manage, at least can be properly diagnosed and classified, and a course of rational therapy can be instituted.

There is a large group of cases, however, which do not fit into this typical pattern. The turbinates exhibit excessive turgescence but usually shrink fairly well upon the application of vaso-

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constrictors. The mucosa is not unduly pale but usually exhibits moderate edema. There is excessive free serous or mucoid secretion which usually results in annoying "postnasal drip."<sup>1</sup> The patient feels as though he has a "head cold all the time," with a moderate amount of sneezing, considerable obstruction to breathing and a liberal urge to blow the nose. The symptoms are frequently aggravated by lying down, and usually shift from one side of the nose to the other when the patient is recumbent. Nasal smears usually fail to reveal eosinophiles, or, in fact, any cells. Skin testing usually proves negative to all known allergens. These cases are usually classified under the heading "Chronic Vasomotor Rhinitis, Non-allergic." The management of these patients is often quite difficult and depends to a large extent upon empiricism.

A careful history is by far the most important aid in diagnosing the probable cause of the autonomic imbalance which has resulted in nasal obstruction. It is of utmost importance to investigate the environmental conditions under which the patient works and lives, as it is frequently seen in those whose occupation or activities cause them to undergo sudden and repeated changes in environmental temperature, such as those who work in and out of refrigerated or air conditioned rooms or buildings, and in those working around paint solvents, spices, chemicals or dust (even though they are not skin-sensitive to the agents mentioned). Females appear to be affected more often than males, especially during periods of excitement or physiologic imbalance (such as menstrual periods, pregnancy, menopause, etc.). The condition is quite common in the latter half of pregnancy.<sup>2</sup> The symptom-complex is commonly seen in the third, fourth and fifth decades of life, but is sometimes seen in younger or older persons. It is frequent in "high strung" or "nervous" individuals.

In recent years many cases of vasomotor rhinitis have resulted from the injudicious use and abuse of nasal vasoconstrictors.<sup>3, 4</sup> During the early stages, the simple swelling of the turbinates

can be *temporarily* relieved by the use of sympatheticogenic nasal drops, sprays and inhalers. However, this sympathetic stimulation, like all physiologic stimulations, is followed by a period of depression, during which time the turbinates again become turgescent. This sets up a vicious cycle, with the patient using his nose drops or inhaler at more frequent intervals to obtain relief. Soon the periods of depression become longer in duration and deeper in effect, and stronger vasoconstrictors are employed. Eventually even these fail to elicit a response and a state of near-paralysis of the smooth muscles of the turbinal cavernous tissues results. At this stage the patient has a full-blown chronic vasomotor rhinitis, and the turbinates begin to undergo fibrotic and hypertrophic changes of a permanent nature.

#### *Hypertension and Vasomotor Rhinitis*

Very recently a whole new group of cases have been seen as a result of the use of the newer anti-pressor drugs in the treatment of hypertension. It has been recognized for many years that an occasional severe hypertensive patient will exhibit vasomotor rhinitis as a concomitant reaction to the disease. The older vasodilator drugs (such as the nitrites) did not seem to affect the nasal tissues and, if turgescence were present before treatment with them, it was soon relieved as the blood pressure was reduced. On the other hand, reserpine, rauwolfia and the sympathetic-blocking agents which are now being widely prescribed, apparently have a non-selective action on all vascular smooth muscle and cause very annoying, even distressing, nasal congestion in a large percentage of the patients employing them. This form of vasomotor rhinitis is apparently not being recognized as yet, as so very many patients seek otolaryngologic aid for "a head cold which won't clear up." The history often reveals especial difficulty with breathing at nights, with loss of sleep, secondary emotional distress and increasing hypertension in spite of the drugs.

### Treatment

In the early stages, before permanent fibrotic or bony changes have occurred in the turbinates, the treatment of these cases is almost universally successful. However, the management of the cases is almost always difficult, as the patient so often must change his occupation or mode of living to avoid the offending cause, and must absolutely and irrevocably give up the use of vasoconstrictor nose drops, sprays and inhalers. The latter is often as difficult of accomplishment as breaking off the smoking habit, and is no less important if success is to result from the treatment. The use of sedatives and tranquilizing agents, such as barbiturates and thorazine, often prove very helpful. The anti-histamines are by far the most important agents in the treatment of this annoying condition. At the outset of treatment, one may combine a small amount of sympatheticogenic drug (such as ephedrine, clopane, propadrine etc.) with the anti-histamines for oral administration, provided the patient is not hypertensive. This provides some systemic vasoconstrictor effect without direct (local) assault upon the already damaged and paretic tissues of the nose. After a few days, the sympatheticogenic drug should be eliminated. In the hypertensive patient suffering the side effects of rauwolfa or its alkaloids, it is often possible to control the nasal obstructive symptoms with one or two doses daily of a long-acting anti-histamine taken along with the anti-pressor drug. In fact, many hypertensives seem to enjoy a synergistic sedative effect which is beneficial in relieving the elevated blood pressure.

In cases which do not respond after a week of therapy, the use of sclerosing injections into the lower turbinates should be instituted<sup>4, 5, 6</sup>. Usually one or two injections into each lower turbinate, at weekly or bi-weekly intervals, affords

more or less permanent shrinkage of the turbinates, provided that fibrotic or bony changes have not already taken place, and provided the patient faithfully avoids the offending agents or "covers" the anti-pressor medication with adequate amounts of anti-histamine drugs.

In cases with actual hypertrophy of the turbinates, surgical removal of some of the non-functioning tissue will be required for mechanical relief. However, this is seldom necessary since most cases are now seen early enough to effect relief without surgical intervention.

### SUMMARY

1. Vasomotor rhinitis may be of the allergic type or of the non-allergic type.
2. The recent use of rauwolfa serpentina and its alkaloids in the treatment of hypertension has added a new and frequent cause to the etiologic factors responsible for the non-allergic type of vasomotor rhinitis.
3. A method of treatment is outlined.
4. The use of anti-histamines concomitantly with these anti-pressor drugs is recommended prophylactically.

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## ENZYMATIC DEBRIDEMENT\*

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The self-liquefaction of blood and the auto-digestion of pus and necrotic tissues are age-old clinical observations. The explanations for spontaneous liquefaction of clotted blood, for pus becoming thin and running from a wound and for pieces of necrotic tissue slipping easily from a wound are now slowly becoming apparent. With partial understanding of these processes, it has been possible to apply certain enzymes to collections of clotted blood and purulent wounds with good therapeutic effect. The proper use of these enzymes necessitates that the physician and surgeon acquire a moderate basic knowledge of enzymes and their action.

Digestion or hydrolysis of the substrate can proceed in the absence of enzymes.<sup>31</sup> The addition of the specific enzyme, however, greatly increases the speed of the reaction. For the molecules of substrate and water to react, they must be properly oriented and must meet with sufficient energy. The surface of the enzyme may be specifically designed to increase the chances of a proper collision between substrate and water.

The ideal enzyme for debridement should digest fibrin, pus and all types of necrotic tissue without injury to normal tissue. The enzyme should have a high coefficient of chemical activity working effectively in small amount against a large quantity of substrate. The enzyme should not be altered in the course of the reaction. The enzyme should be stable and effective in a pH range of 4 to 8 with best action at about 7. The enzyme should not be toxic or antigenic. The enzyme should not cross the membrane of the living cell. The action of the enzyme should not be inhibited by the products

of digestion. The action of the enzyme should facilitate antimicrobial action and promote the processes of repair of tissue. The enzyme should not lose strength in aqueous solution. The mechanics of the use of the enzyme should be simple. The enzyme should be easily extracted or manufactured. These criteria cannot be met by one enzyme. A start, however, has been made in the development of a battery of enzymes, each of which is therapeutically specific for individual substrates.

Enzymes<sup>4</sup> are organic catalysts produced by cellular action but independent of living cells for their activity. Enzymes are generally soluble, colloidal, highly active, specific and susceptible to changes in pH, temperature, and other conditions of the environment. Enzymes do not initiate chemical reactions but they do alter their speed.

For action the enzyme may require the presence of an activator, a co-enzyme, or certain metallic ions. Other metallic ions may inhibit the enzyme. The speed of the enzymatic reaction varies with the concentration of the enzyme, the pH, the temperature, the chemical composition of the substrate, and the concentration of the substrate. The accumulation of products of digestion may reverse the action. Enzymatic digestion is thus a complicated mechanism.

Most enzymes<sup>4</sup> are denatured and therefore inactivated by heating their solutions to about 60°C. Temperatures as low as 0°C. are not commonly destructive. Within their active range, most enzymes double their activity with each rise of 10°C.<sup>4</sup> until the critical temperature for denaturation is reached. The optimal temperature for action on the substrate is between 40°C. and 50°C.<sup>4</sup>

The pH of greatest activity of most enzymes<sup>4</sup> lies between 4 and 8 with rapid inactivation on

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each side of this range. Alteration in pH may affect the dispersion of the enzyme, the rapidity of combination of substrate and enzyme, and the decomposition of the substrate-enzyme complex to form the products of digestion. Change in the activity of the enzyme associated with variation in pH could indicate that the decline in activity is due to alteration of the ionized state of the enzyme which is a multivalent amphoteric electrolyte.

The rate<sup>31</sup> at which a catalytic reaction proceeds is generally directly proportional to the concentration of the enzyme. Doubling the concentration of the enzyme usually doubles the rate of reaction, as long, however, as the concentration is small. The addition of large quantities of enzyme may not produce the expected rate of reaction since the initial rapid action may deplete the supply of reactants.

Increasing the concentration of substrate<sup>31</sup> will increase the speed of reaction until a critical level is reached. Insufficiencies in the supply of reactants will slow the reaction in a similar manner to where the concentration of the enzyme is increased greatly.

A number of substrates may be present in the infected wound. They include fibrin, pus and necrotic tissue, which will vary in character depending upon the anatomical site affected, such as skin, fascia and muscle.

Fibrin<sup>31</sup> is a protein with a fibrous structure formed from its precursor fibrinogen, a globulin, by thrombin. The soluble fibrinogen is converted to an insoluble fibrin. The mechanism of the action is not known.

Pus contains large amounts of highly viscous desoxyribonucleoprotein and desoxyribonucleic acid<sup>27</sup> which are large chain molecules. The nucleoproteins<sup>31</sup> are composed of a protein and a nucleic acid which is the prosthetic group. The nucleic acids are polynucleotides which upon hydrolysis yield nucleotides. The naturally occurring nucleotides are adenylic acid, guanylic acid, cytidylic acid, uridylic acid and thymidylic acid. These are phosphoric esters of the cor-

responding nucleosides. The nucleosides are a combination of a pentose with a nitrogenous base as a purine or a pyrimidine. The sugars present are d-2-desoxyribose or d-ribose. The two purine bases are adenine and guanine and the three pyrimidine bases are thymine, cytosine and uracil. Hydrolysis of the nucleic acids yields phosphoric acid, two pentoses, two purine bases and three pyrimidine bases.

Skin<sup>31</sup> contains keratin, an albuminoid, which is insoluble in any solvent which does not attack it chemically. Keratin contains a high content of cystine and relatively constant amounts of histidine, lysine and arginine.

As far as can be determined<sup>31</sup> fascia consists of collagen imbedded in a matrix of mucoprotein, along with mucopolysaccharides in the free state. Collagen,<sup>31</sup> a scleroprotein or albuminoid, is one of the simple proteins. It has been suggested that the collagen fibril consists of six polypeptide chains lined end to end with four to six groups in each unit.<sup>21</sup> The exact chemical composition of collagen is not fully known, although one-third is glycine, one-third either proline or hydroxyproline and a small part tyrosine.<sup>30</sup> It has also been reported<sup>20</sup> that collagen contains a high content of glycine, proline and hydroxyproline, a low content of tyrosine and tryptophane and a very small content of the sulfur-containing amino acids. Collagen is insoluble in water and resistant to hydrolysis. Collagen is converted in boiling water to gelatin which is a derived protein without albuminoid properties. The mucoprotein contains a mucopolysaccharide as a prosthetic group.<sup>31</sup> The mucopolysaccharide present is chondroitin sulfuric acid. The chief one of the mucopolysaccharides in the free state is hyaluronic acid.

Muscle contains actomyosin which comprises about sixty per cent of the protein found there.<sup>31</sup> It is the chief and perhaps the only protein of the myofibril with the other proteins of muscle being found in the sarcoplasm. Actomyosin, with the solubility characteristics of a typical globulin and the physical structure of an albumi-

noid, is usually grouped with the globulins. The protein is labile and readily denatured. Its solutions are highly viscous. Actomyosin is composed of long polypeptide chains held together in parallel by subsidiary side chains which are highly hydrated.

Varidase<sup>22</sup> and tryptar are currently available for the treatment of infected wounds and success has attended their use in a significant number of patients. The enzymes act in similar manner in some respects and in dissimilar manner in others.

Varidase is isolated from broth cultures of streptococci, with the H 46 A strain being an unusually potent producer of the enzymes. Varidase contains streptokinase, a substance which initiates fibrinolysis, and streptodornase, a group of enzymes concerned with depolymerization of desoxyribonucleoprotein and desoxyribonucleic acid.

Streptokinase is a protein which has maximal activity at pH 7.3 to pH 7.6.<sup>1</sup> At a pH of 5.6, the substance is inactivated but can be reactivated if the pH is increased. At a pH of 9.0 or higher, streptokinase is irreversibly inactivated. The substance is rendered inert by trypsin and activated papain. Streptokinase does not act upon casein, peptone or gelatin. Streptokinase is a kinase, acting upon plasminogen in the euglobulin fraction of the blood to change it to plasmin. Plasmin liquifies fibrin and inhibits the conversion of fibrinogen to fibrin. Under the influence of plasmin, fibrin undergoes a mild type of proteolysis with the formation of several soluble small proteins or large polypeptide fragments with only about ten per cent being evolved as non-protein nitrogen. Streptokinase can be isolated from the dissolved fibrin clot after completion of liquefaction. Streptokinase is antigenic and an antikinase may develop in human beings as the result of prolonged treatment with streptokinase.

Streptodornase actually is a group of enzymes which act upon desoxyribonucleoprotein and desoxyribonucleic acid which are long chain

molecules. The enzymes act over a wide range of pH but action is greatest between pH 7.0 and pH 8.5 with the optimal being about pH 7.5. Streptodornase activity is inhibited by citrate and heparin.<sup>26</sup> Sherry, Johnson and Tillett<sup>26</sup> observed that the viscosity of pus was mainly due to desoxyribonucleoprotein and desoxyribonucleic acid and to a lesser extent to ribonucleic acid. Sherry and Goeller,<sup>25</sup> using paper chromatography and ultraviolet absorption spectra, showed that streptodornase causes a depolymerization of desoxyribonucleoprotein and desoxyribonucleic acid breaking the molecules into multiple fragments composed of nucleotides, nucleosides and finally into purine and pyrimidine compounds. To accomplish these successive steps, streptodornase appeared to be a series of progressively acting, closely related and highly specific enzymes. The first enzyme acting upon the highly polymeric nuclear material would be the depolymerase which would cause a drastic change in viscosity. This action resembles the effect of crystalline desoxyribonuclease described by Kunitz.<sup>5, 6</sup> At this point, however, the streptodornase mixture contains a second enzyme which acts upon the first end-products. The second end-products in turn are acted upon by a third enzyme to give a third mixture of end-products until finally, as Sherry and Goeller<sup>24</sup> showed, the degradation of desoxyribonucleoprotein and desoxyribonucleic acid by streptodornase resembles that caused by acid hydrolysis of the substrates.

Varidase acts best at a pH of 6 to pH 8. The local irritative action of streptokinase produces exudation of enough serum to act as an effective buffer so that a change in the pH of the wound before treatment is not necessary.

The toxic effects from the local application of varidase are practically negligible. An elevation of temperature, particularly when the enzymes are applied in a closed space, is the commonest side-effect. Tillett<sup>30</sup> reported a very low incidence of allergic reactions and none have been observed in the present series of patients.

Hematological, hepatic or renal toxic reactions have not been seen. Prothrombin times have not deviated significantly from normal. Hematomas or areas of ecchymosis did not result from the local administration of varidase. Living tissue was not affected.

Varidase, as currently supplied, has a potency of about 100,000 units of streptokinase and 25,000 units of streptodornase per ampoule. For the treatment of a sterile or infected hemothorax or empyema, the contents of one ampoule are dissolved in 20 cc. of sterile isotonic sodium chloride solution and injected into the pleural cavity through an intercostal catheter. The catheter is occluded for four hours. The products of digestion are removed during the next four hours by applying suction of about minus 20 cm. of water by a Stedman pump. Large partly digested particles can be washed from the pleural cavity with physiological saline just before the next dose of varidase is given. Treatment is given twice a day.

For infections of the soft tissues a similar solution of varidase may be used. The wound is filled with solution and covered with nylon gauze. If the wound is deep, catheters are placed into its depths, a piece of nylon invaginated into the area and the wound packed with gauze. The solution is injected through the catheters twice a day. The catheters are occluded for four hours after the injections to permit digestion after which suction about minus 20 cm. of water is applied to one of the catheters using a Stedman pump.

A number of patients with hemothorax<sup>7, 10, 13, 18</sup> and a large number of patients with a wide variety of infections<sup>8, 7, 8, 9, 10, 11, 12, 14, 16, 18, 23, 24, 32</sup> in many anatomic locations have been treated with a high degree of success. Failure occurred in a small number of patients.

A poor blood supply was the prime cause of failure for it was impossible to control infection under this circumstance. Uncontrolled osteomyelitis where it was not possible to reach bacteria in the interstices of the bone accounted

for other failures. An inability to saucerize to healthy bone because of the desire to maintain continuity caused failure in other patients. Poor after-care by the patient led to failure in a small number.

Tryptar, which is mammalian crystalline trypsin, is stable indefinitely in the dry form at room temperature. The enzyme is active over a pH range of 5.6 to 8 exhibiting its greatest activity at 7. It completely digests fibrin and partially digests pus and necrotic tissue, with the products of digestion being small polypeptides and certain amino acids. There is a considerable differential in the destruction of various groups of proteins by tryptar since denatured protein and flat chain molecules, such as, fibrin and fibrinogen, are hydrolyzed much more easily than other proteins. Tryptar acts only slowly and incompletely upon collagen. The enzyme will not dissolve the scar tissue overlying hemorrhagic and/or pyogenic exudate.

Tryptar is not active upon and does not harm living tissues for trypsin does not penetrate the viable cell membrane. In addition, each living cell contains a specific trypsin inhibitor which protects the cell from proteolytic action. The blood serum also contains specific and non-specific trypsin inhibitors which counter the effects of tryptar. Effective phagocytic action by polymorphonuclear leukocytes is enhanced. The local blood supply is not affected.

Tryptar can be used as a powder by sprinkling or blowing on the wound, as a solution in Sorenson's Phosphate Buffer Solution in the form of a wet dressing, instillation, irrigation or infiltration or used as an ointment in a Lubafax base. The major portion of digestion will occur in the first thirty minutes of each application when using the powder and in the first four hours when using the solution. Solutions of tryptar must be made just before use.

The toxic effects of tryptar are practically negligible. The histamine-like effect of a mild elevation of temperature and an increase in pulse rate encountered when tryptar is used in a

body cavity may be prevented by the prior administration of 0.01 to 0.02 grams of benadryl intravenously and then benadryl, 0.1 grams orally, every three hours for three doses after the injections of trypsin<sup>28, 29</sup>. In surface lesions, tryptar may occasionally produce severe burning. This complaint has been noted chiefly in patients whose wounds have had a poor blood supply. A spray of two per cent pontocaine, two per cent xylocaine or four per cent cocaine can be used effectively to anesthetize the area before the tryptar is used. Furthermore, one per cent procaine can be added in amounts up to ten cc. ampoule of tryptar without causing loss of potency or stability. Frequently, local stinging can also be alleviated by the oral administration of antihistaminics. Tryptar has not caused ecchymosis, hematoma or petechiae.

Tryptar, as currently supplied, has a potency of about 0.25 grams per ampoule. The enzyme is used in a similar manner to varidase.

Clinical experience with tryptar in the treatment of a number of patients with hemothorax<sup>15, 17</sup> and a large number of patients with infected wounds<sup>15, 17, 19</sup> has been excellent. The failures were due to the same causes in effect where poor results were obtained with varidase.

#### SUMMARY

Progress in the treatment of infected wounds with enzymes has been of sufficient degree to indicate the permanent usefulness of these agents. Proper use of the enzymes demands a knowledge of the substrates upon which they act and of the environmental factors which govern their actions. Varidase and tryptar are the forerunners of a battery of enzymes which will be applied to specific substrates in infected wounds.

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# ACHROMYCIN

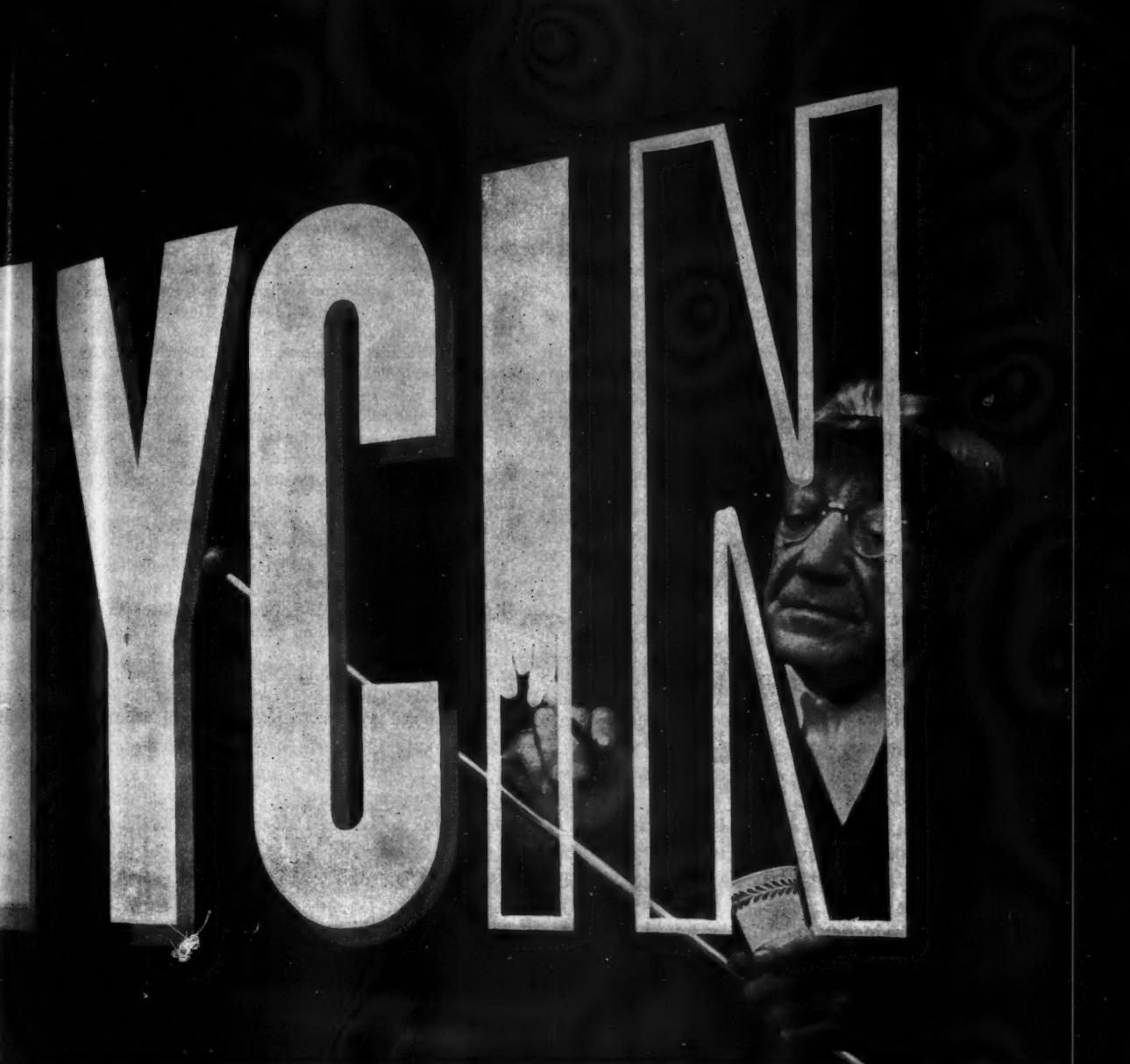
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## FACTITIAL SURGICAL DISEASE\*

RONALD S. SEATON, M.D.†

The production of factitial disease by a surgeon is an extremely serious problem. It is unexpected, unintended, and unnatural. It is a disappointment both to the patient and to the surgeon. The very derivation of the word "factitial" means it is a disease produced artificially, a new disease created by surgery.

It is not yet anticipated that a surgeon will cure completely every disorder referred to him, but it is always expected of every surgeon that his operation will not cause another disease. Hippocrates himself summarized the problem with the admonition, "do your patient no harm."

The reasons for studying the incidence of factitial surgical diseases are numerous. Firstly,

we are constantly reminded in the literature of the frequency of complications arising in and after specific types of surgery. This is often recorded in meaningless digits even though different reports may vary widely. Yet no one will deny their gross value. This study, however, reminds us that almost every operation is able to produce a factitial disease. Secondly, it also reveals that almost every surgeon should refrain from promising his patients that, "after the operation everything will be all right," for even he may inflict upon the patient, a new disease. Thirdly, it is hoped that this study will help to stimulate constant improvements in technique and judgment in the art of surgery.

A review of 2,473 surgical admissions over a nine month period, from July 1, 1953 to April 1, 1954, at The Church Home and Hospital, have

\* Presented before the Baltimore City Medical Society on Resident's Night, Friday, March 4, 1955.

† Assistant Resident in Surgery.

revealed a total of 42 cases of clear cut factitial surgical diseases. This number does not include the more minor factitial complications treated in the Out Patient Department or in the offices of private physicians. This also should represent a conservative over all sampling, as this hospital schedules a wide variety of surgical procedures in many specialties performed for the most part by or under the supervision of surgeons closely associated with two class A medical schools. Finally, it does not represent complications in which the original disease played any part other than simply initiating surgery. In the light of our present knowledge, it illustrates 42 cases of disorders caused by surgery, either by what was done, or left undone.

The distribution of cases is as follows:

Five cases of incisional hernia ensuing from each of the following apparently uncomplicated abdominal operations: hysterectomy, cholecystectomy, exploratory laparotomy, appendectomy and gastric resection.

Two cases of evisceration following what appeared to be otherwise completely uncomplicated cholecystectomies. One of these patients died. This reflects the relatively high mortality rates with large eviscerations as described by Joergenson and Smith.

Three cases of intestinal cutaneous fistula subsequent to accidental perforation of densely adherent intestines. Two of these patients had received previous radiation therapy for localized pelvic carcinoma.

One case of stricture following hemorrhoidectomy requiring excision under general anesthesia.

Three cases of intercostal neuralgia after thoracic surgery. These required neurectomy and removal of nerve roots with dorsal ganglia.

Three cases of subscapular abscess with cutaneous fistulae subsequent to presumably relatively uninfected pulmonary resections and to decortications for fibrothorax.

One cutaneous stenosis of a permanent tracheotomy requiring readmission for reinsertion of the tube.

Two cases of pulmonary emboli following ligations of saphenous veins for simple varicosities. One of these patients developed a wound infection and was readmitted on his 13th postoperative day with his first embolus. He died of a second embolus while in the hospital. The second patient developed his embolus on the 9th post-operative day, in spite of early ambulation.

One case of subhepatic abscess after an uncomplicated gastric resection for a benign ulcer. This patient required readmission for drainage.

One case of multiple subdiaphragmatic abscesses following an uncomplicated subtotal gastric resection for a benign ulcer. These abscesses required incision and drainage on three separate occasions.

One case of rupture of a ureter during dilation for stricture. This patient required readmission for exploration of ureter and retroperitoneal drainage of urine.

One case of irritation of a lumbar nerve root by scar tissue due to a previous laminectomy for spondylolisthesis requiring neurolysis.

One case of hypoparathyroidism following thyroidectomy requiring readmission for study and daily oral intake of 4 c.c. of 25%  $\text{CaCl}_2$ .

One stricture of the common bile duct secondary to an uncomplicated cholecystectomy and choledochotomy. This patient has been admitted for two subsequent operations for this disorder.

Four cases of peritoneal adhesions following uncomplicated abdominal operations and which required readmission for operation or tube decompression.

Six cases of wound infection requiring reoperation following apparently aseptic surgical procedures.

One case of retained foreign body, a broken needle, left in the tonsillar fauces during T. & A. This required two attempts with general anesthesia for removal.

Five cases of excessive delayed bleeding from operative wounds requiring readmission for packing, suture, transfusion or combinations of these procedures.

TABLE 1

## Factitial Surgical Diseases in the Various Surgical Specialties

<i>General Surgery</i>	
Incisional hernia	4
Evisceration	2
Intestinal fistula	1
Pulmonary embolus	2
Subhepatic abscess	1
Subdiaphragmatic abscess	1
Hypoparathyroidism after thyroidectomy	1
Stricture of common bile duct	1
Peritoneal adhesions	2
Wound infection	4
	19 Total
<i>Gynecologic Surgery</i>	
Incisional hernia	1
Intestinal fistula	2
Rupture of ureter	1
Peritoneal adhesions	2
Delayed bleeding	1
	7 Total
<i>Thoracic Surgery</i>	
Intercostal neuralgia	3
Subscapular abscess	3
	6 Total
<i>Orthopedic Surgery</i>	
Wound infection	1
Lumbar nerve scar irritation	1
	2 Total
<i>Proctologic Surgery</i>	
Anal stricture	1
Wound infection	1
Delayed bleeding	2
	4 Total
<i>E.E.N.T. Surgery</i>	
Tracheotomy stenosis	1
Retained foreign body	1
Delayed bleeding	2
	4 Total
Total.....	42

Not included in this review, are cases of excessive bleeding detected on the wards immediately following operation and which required immediate packing or resuturing. Nor, are there included, minor operations performed on the wards for bleeding or wound infections in the same admis-

TABLE 2

## Incidence of Factitial Surgical Diseases

Number of Cases	Number of Operations	Incidence
<i>Following Major Surgery</i>		
32	1,862	1.7%
<i>Following Minor Surgery</i>		
10	611	1.6%

sion as the original surgery but which might have contributed to considerably extending the patient's hospital stay. Also, not included, are other cases which might suggest some factitial origin such as ureteral strictures dating from soon after a pelvic operation, vesicovaginal fistulae from uterine radium implantation, uterine prolapse after suspension, anal tags after hemorrhoidectomies, recurrent hernias and cystoceles, thrombophlebitis dating from an operation, and ulcers caused by X-ray burns—all of which were found in this nine month review.

It might be of some interest, but certainly not particularly representative, to group these diseases into respective surgical specialties. Table 1.

The number of factitial surgical diseases following major surgery totaled 32, and the number of major surgical operations performed at The Church Home and Hospital, over the nine month period, totaled 1,862. The incidence of factitial surgical diseases following major surgery approximated 1.7%. The number of similar disorders following minor surgery was 10 cases and represented an incidence of approximately 1.6% in 611 minor operations. The comparison of the two figures demonstrates that from this point of view it ill behooves anyone to treat minor surgery lightly. Table 2.

There were two deaths in this group of 42 patients with factitial surgical diseases, one after major and one after minor surgery. The combined mortality rate was 5%. It so happened in this series that the mortality rate contributed by minor surgery was 1 out of 10 cases or 10%,

TABLE 3  
*Mortality Rate of Factitial Surgical Diseases*

Number of Deaths	Number of Cases	Rate
<i>Following Major Surgery</i>		
1	32	3%
<i>Following Minor Surgery</i>		
1	10	10%
<i>Combined Group</i>		
2	42	5%

TABLE 4

*Comparison in Incidence of Patients over and under 50 years of age with Factitial Surgical Diseases, and Surgical Admissions in general at Church Home and Hospital*

Type of Patients	Number with Factitial Disease	Number of Surgical Admissions in General	%
Over 50 years.....	18	36	41
Under 50 years.....	24	52	59
Total.....	42	88	

while that by major surgery was only 1 out of 32 cases or 3%. Table 3. Obviously, this was due to distorted sampling.

An attempt was made to ascertain whether certain patients might have been more susceptible to succumbing to factitial diseases by comparing the so-called "added risks" of elderly and obese patients with younger and thinner individuals. Tables 4 and 5. There were 18 of the 42 patients or 43% over 50 years of age. This compares closely to 41% which represents the proportion of all patients over 50 years of age admitted to The Church Home and Hospital for surgery of all types.

Of the males recorded weighing over 180 lbs. and females weighing over 150 lbs., there were 34% classified as obese among all the patients with factitial diseases. This also compares closely with the figure 35% which represents the proportion of all patients classified as obese and admitted to the hospital for all types of surgery.

TABLE 5  
*Comparison in Incidence of Obese Patients with Factitial Surgical Diseases, and Surgical Admissions in general at Church Home and Hospital*

Type of Patients	Number with Factitial Disease		Number of Surgical Admissions in General	
		%		%
Males Over 180 lbs.)	13	34	31	35
Females Over 150 lbs.)	25	66	57	65
Thin.....				
Total.....	38		88	

Consequently, it is again observed from this point of view that it is the surgery and not the patient alone that should be improved.

#### COMMENT

A discussion of how to diminish the incidence of factitial surgical diseases to an irreducible minimum is worthy of nothing less than a whole textbook such as that by Max Thorek. In a search of the literature for suggestions, I think the most succinct advice is a plea by G. S. Fahrni, "Operate with gentleness and unhurried speed."

#### SUMMARY AND CONCLUSIONS

There were 42 cases of clear cut factitial surgical diseases seen over a nine month period from July 1, 1953, to April 1, 1954, at The Church Home and Hospital. The incidence following major surgery was 1.7% and that following minor surgery was 1.6%. These cases were of a severity sufficient to cause the patients' readmission to the hospital, reoperation, prolonged hospitalization, or even death. This is a distressing number of surgical complications which, though completely unintended, were produced by surgery conducted even under the best of operating room conditions. The surgeon must never be satisfied until he is certain that he has not only cured a patient's disorder, but that he has not also caused a new disease.

*Church Home and Hospital  
Baltimore 31, Maryland*

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SKIN MALIGNANCIES<sup>1,2</sup>

ARTHUR G. J. SIWINSKI, M.D.

Because of the excellent results obtained in the treatment of skin cancers, we tend to regard these lesions less seriously than we do other tumors. Only too often do we see patients who have had their lesion for several years, and when questioned why they did not seek treatment earlier hear them say, "I showed this to my doctor when it first began and he said if it did not bother me not to bother it." Although the doctor did not mean exactly that, nevertheless the patient took him literally. Occasionally such undue postponement of treatment may be dangerous especially in lesions about the nose and inner canthus of the eye, since involvement of the bony structures may occur. Once malignancy invades the facial bones even though it be of the basal cell variety, cure is almost impossible and over a period of years the patient will gradually have his face destroyed (Figure 1.) Although early treatment is not so important from the standpoint of life it is very important cosmetically since most of these lesions occur upon the exposed parts of the body. The smaller the lesion the better the cosmetic result after treatment.

There are many well known chemical and physical agents which are carcinogenic in susceptible individuals. Probably the most important of the physical agents are the actinic rays of the sun. Others include the late effects of irradiation, especially when given in small dosages; the

effects of extremes in temperature and the small repeated irritations that occur over a long period of time. Many chemical agents which are used extensively in industry are definite carcinogens especially those encountered in the processing of coal tar and in the oil refining industry. Caustic agents when splattered on the skin, as noted in the galvanizing process of iron and in the creosoting of logs, speeds up the process of malignant degeneration. Arsenicals taken internally will produce keratotic lesions on the skin which frequently break down into squamous cell carcinoma.

The commonest malignant lesions of the skin are the basal and squamous cell carcinomas. Figure 2 demonstrates a typical basal cell carcinoma. Patients with this type of lesion usually give a history of having a small crust on the skin. The crust is knocked off during washing or sometimes during sleep. A little bleeding occurs and then a new crust forms. Each time this occurs the lesion grows a little larger. On examination one sees a crusted lesion, which upon removal of the crust becomes umbilicated with or without granulation in the center. The edges are rolled and translucent.

Figure 3 shows a typical squamous cell carcinoma. The patient with this type of lesion does not give quite as exact a history as the patient with the basal cell lesion. Usually he complains of a sore that will not heal. At times he will give a history of temporary healing followed by another ulcer a little larger than the one before. Examination reveals an irregular ulceration with undermined edges and induration about the base.

<sup>1</sup> From the Oncology Clinic, Surgical Division, University of Maryland, Medical School. Submitted October 10, 1954 for publication in the MARYLAND STATE MEDICAL JOURNAL.

<sup>2</sup> One of a series of papers from the Maryland Division of the American Cancer Society that will appear from time to time.



FIG. 1



FIG. 2



FIG. 3

Basal cell lesions are much more common than are the squamous cell variety. Both lesions may occur anywhere on the skin, but they show a predilection for the exposed surfaces of the body. Although there have been a few cases of metastases from basal cell lesions reported, they are usually considered non-metastasizing. The squamous cell lesions of the skin may metastasize, however, it occurs rather late in the course of the disease.

Treatment of small lesions, those under 1 cm. in diameter, whether they are basal or squamous cell may be accomplished very easily by electro-surgical excision. The lesion should be circumscribed with a  $\frac{1}{2}$  cm. margin on all sides. The electrode should be kept perpendicular to the skin so that the margin on the surface corresponds to the base margin. This original incision should be carried down to the fatty layer, and the plug of tissue lifted with a forceps and separated from the underlying fat with the cutting current (Figure 4). The base margins should then be treated with the desiccating current. An application of gentian violet in alcohol and acetone is effective in reducing secondary infection. The defect fills in from six to eight weeks and becomes inconspicuous with the passage of time. The larger lesions are best left to those who have experience in treating them. Methods used on the larger lesions are surgical excision and irradiation. The choice of treatment will depend on the size of the lesion, its location and on the composition of the underlying structures.

Melanomas are in a class by themselves. Most people have nevi, but only a very small percent-

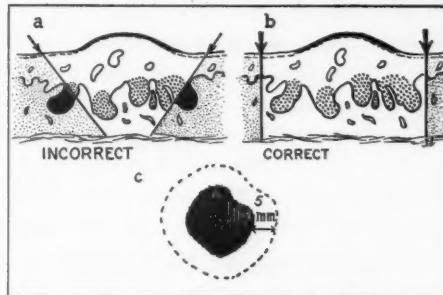


FIG. 4

age undergo malignant degeneration. When this does occur the sequence of events is usually so terrible that we all rightfully fear these lesions. The best treatment for melanomas is PREVENTION. It is good policy to remove any nevus that is subject to irritation. Areas most frequently irritated are: 1) the face especially in men by shaving; 2) the neck by neckwear, jewelry or clothing; 3) the torso, areas irritated by straps and belts—this is especially true in women; 4) the thigh which may be irritated by garters; 5) the feet where irritation from shoes may occur. Nevi may be removed by electrosurgery as previously described or by the scalpel. It is imperative that the entire lesion be removed the first time.

The public has been educated to seek medical advice when they notice any change in color or size of a pre-existing mole. This is well and good—however, if we wait until a nevus changes we may be courting trouble, since change usually signifies malignant degeneration. Prophylaxis is better than treatment.

The skin is involved in other malignant conditions such as: 1) metastatic lesions from the breast or gastrointestinal tract and 2) generalized conditions such as lymphoblastomas. These lesions require generalized treatment rather than specific local treatment.

These observations are made with the hope that malignant lesions of the skin will be recognized and treated at an early phase. It is far better to remove a persistent benign lesion than to wait until malignant degeneration occurs.

15 East Biddle Street  
Baltimore 2, Maryland

ANNUAL MEETING  
MEDICAL AND CHIRURGICAL FACULTY  
MAY 2, 3, 4, 1956  
Baltimore, Maryland

**Scientific Sessions.** The Committee on Scientific Work and Arrangements have planned the Annual Meeting of the Faculty. Colonel Joseph R. Shaeffer, Chief Surgical Consultant, Office of the Surgeon General, will speak at the Presidential Dinner to be held at the Sheraton Belvedere Hotel on Thursday evening, May 3rd. At the same dinner meeting, Dr. William H. F. Warthen, President of the Faculty, will give his Presidential Address, the tentative title of which is, "The Practice of Preventive Medicine." A Round Table Luncheon will again be held at the Sheraton Belvedere Hotel on Thursday, May 3rd, and there will be subjects of interest for every member.

**Business Sessions.** The Council will meet on Wednesday morning, May 2nd, and the House of Delegates will meet on Wednesday and Friday mornings, May 2nd and 4th.

**Woman's Auxiliary.** The Annual Meeting of the Woman's Auxiliary to the Medical and Chirurgical Faculty will be held on Wednesday, May 2, 1956. The outstanding feature is the luncheon on this day, and time is allowed on the Faculty program so that the members may support the Auxiliary by going to the luncheon.

**Ball.** This will be held at the Alcazar on Friday evening, May 4, 1956, and is sponsored by the Woman's Auxiliary to the Baltimore City Medical Society.

**WATCH FOR YOUR PROGRAM WHICH WILL BE MAILED TO EVERY MEMBER  
THE LATTER PART OF APRIL!**

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## ARTICLES OF INTEREST

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### THE BALTIMORE MULTIPLE SCREENING CLINIC\*

DEAN W. ROBERTS, M.D.†, CHARLES M. WYLIE, M.B., CH.B.,  
AND MARVIN GLASSER, M.P.H.‡

A preliminary description of the Baltimore Multiple Screening Clinic was given in the pages of this JOURNAL over a year ago.<sup>1</sup> The purpose of this article is to summarize some of the major findings of the clinic, and to suggest whether it succeeded or failed in its purpose.

#### ITS PLACE IN THE CHRONIC ILLNESS STUDY

The several steps in the Baltimore Chronic Illness Study have already been described in this Journal.<sup>2</sup> We will briefly repeat them here, however, to review the part which screening played in the study.

The study began when the Bureau of the Census chose 4,000 households, including approximately 12,000 persons, to be representative of the population of Baltimore City. Trained lay interviewers visited these households and recorded in detail the illness and disability reported for each individual.

Approximately 11% of those 12,000 persons (1,292) were invited to attend a special evaluation clinic at the Johns Hopkins Hospital. The medical work-up which they received there was designed to give a fairly close approach to an absolute determination of the illness status of each individual. When this step was completed in February, 1955, 764 persons (59 per cent) had been evaluated on the basis of a complete and

current medical work-up. An additional 45 persons (3 per cent) have been classified on the basis of medical records made available by physicians and hospitals. The remaining 483, or 37 per cent, include persons who declined to participate for personal or religious reasons and those who died or moved away.

Those individuals over 16 years in the sample, who were not invited to the evaluation clinic, received mailed invitations to attend the multiple screening clinic on an appointment basis. No physical examination was performed at this clinic, but the following tests were carried out by technicians: six-lead electrocardiogram, miniature chest roentgenogram, blood pressure determination, height and weight, urine and blood sugar determinations, tests for albuminuria and anemia, serological test for syphilis, hearing and visual acuity tests and a dental examination.

The Baltimore multiple screening clinic was mainly held to determine if such a screening procedure could provide useful additional information on the health status of the individuals in the Commission's study. It was also hoped, however, that the practical experience of running such a clinic would enable the Commission to make a critical assessment of multiple screening, which has been praised by some and condemned by other medical workers.

#### CHANGES IN THE SCREENING PROCEDURE

In the selection of the tests to be used, the Commission had the helpful advice of a technical committee composed primarily of physicians practicing in Baltimore.<sup>3</sup> Several of the tests were described in detail in a previous article.<sup>1</sup> How-

\* The Commission on Chronic Illness is a temporary national, non-governmental, research and educational organization founded in 1949 by the American Medical Association, the American Public Health Association, the American Public Welfare Association, and the American Hospital Association. The Commission plans to make its recommendations on the problems of chronic illness in the United States in 1956, when it goes out of existence. Submitted October 16, 1955 for publication in the MARYLAND STATE MEDICAL JOURNAL.

† Director, Commission on Chronic Illness.

‡ Research Assistant, Commission on Chronic Illness.

TABLE 1  
Criteria used to determine need for referral to personal physician

Test	Criteria for Referral to Personal Physician
Electrocardiogram	Reading of cardiologist, who used Framingham criteria as a guide
Blood Pressure	Under 35 years, above 150 systolic and 90 diastolic. 35-50, above 160 systolic and 96 diastolic. Over 50 years, above 170 systolic and 100 diastolic
Miniature chest x-ray	Positive reading of chest physician for tuberculosis, heart disease and other chest conditions
Questionnaire	For heart disease, positive answer to both* questions about discomfort on exertion
Urine and blood sugars	One plus glycosuria, and one hour blood level above 160 mg.% and two hour level above 130 mg.%
Proteinuria	One plus or more, using Bumintest solution
Anemia	Under 11.5 gm.% for males, 10.0 gm.% for females, by copper sulfate specific gravity method
Syphilis	Positive serological test, and positive TPI test
Height and weight	30% or more above "ideal weight" Metropolitan Life Ins. Co. Tables
Vision	20/40 or less in each eye. 20/50 or less in one eye. Wearing glasses when available
Hearing	Average threshold for better ear of 30 decibels or above at frequencies of 500, 1000 and 2000c/s

\* These questions were: (1) Do you ever have distress, pain, or an uncomfortable feeling in the chest while walking on the street or up inclines or steps? (2) While walking, are you forced to stop in order to rest?

ever, two changes were made in the testing procedure which should be mentioned here.

It was originally planned to take the lead 1 electrocardiograph tracing on each individual, on the basis that this seemed to be the most useful of all the single leads to take in screening for heart disease.<sup>4</sup> When it was realized, however, that this method would wrongly classify a large proportion of persons without heart disease as "Doubtful" or "Abnormal"—(the false positives which occur with all screening tests)—it was decided to increase the efficiency of the test by taking six limb leads on each screenee.

The diabetes screening tests also were modified, in that each individual was given 50 gm. of glucose in a carbonated orange drink on arrival at the clinic. The urine sugar was tested 50 minutes later, and the blood sugar after one hour. Those persons whose one hour value was above 160 mg.% were asked to remain one further hour to determine the two hour value. When the latter remained above 130 mg.%, the individual was referred to the family physician as a possible diabetic, provided glycosuria had also occurred.

#### CRITERIA FOR REFERRAL TO FAMILY PHYSICIAN

A basic rule of the clinic procedure was that all test results, whether abnormal or not, were sent to the family physician named by each screenee. This included duplicate copies of the electrocardiogram, and of all letters sent to the patient.

When a test result suggested that the individual would benefit from medical advice, a letter was mailed to the screenee urging a visit to his personal physician for an interpretation of the test results and for such further examinations as were indicated. The criteria used for determining the advisability of such a visit are shown in Table 1.

#### THE REACTION OF THE PUBLIC

Of 6,967 persons invited to attend the clinic, 2,024 or 29% took the tests during October through mid-December, 1954. This was a smaller attendance than had originally been hoped for, although there are no similar studies to guide us in deciding whether this response was good or poor.

The reaction of those persons who attended the clinic was largely a favorable one. About 90% of those who were referred to a physician stated that they were glad that they had attended the clinic. The major complaint of the few dissatisfied screeners appeared to be that they had not had the opportunity of seeing a doctor at the screening clinic.

The favorable reaction of the screeners was also reflected in their willingness to visit their physician when advised to do so. Of 552 individuals with previously unknown abnormalities considered serious enough to justify medical advice, 309, or 55% claimed that they had seen their physician within six weeks after the clinic had closed. This result compares favorably with that of screening clinics held in other areas.

#### THE REACTION OF THE MEDICAL PROFESSION

As with the other steps in the Commission's study, the multiple screening clinic received excellent cooperation from Baltimore physicians. Many screeners were known to have contacted their physicians before accepting the invitation, and had been advised and often urged to attend.

This friendly help from the medical profession again showed up when questionnaires were mailed to obtain the final diagnoses made on those screeners with positive tests. Despite the large amount of literature which arrives in the physician's office, Baltimore physicians took time either by returning the questionnaire or by responding to a telephone call to give their diagnoses on 281 of the 309 patients about whom we inquired—a response rate of 91 per cent.

Misunderstandings occurred on rare occasions. The suggestions made by the doctor at such times were often helpful in preventing a recurrence of such situations.

As a measure of the physicians' evaluation of the clinic, approximately 60 per cent of the physicians replying to a questionnaire stated that they felt that the patient would benefit by the referral.

#### RESULTS OF SCREENING TESTS

Of the 2,024 persons screened, 1,281, or 63 per cent, were positive on one or more of the tests. About half of these (629) were positive for obesity, vision or hearing only, for which we did not urge a visit to a physician. Five hundred fifty-two of the remaining 652 individuals stated that they were unaware of having the condition for which they were screened positive and were therefore referred to their physician.

A summary of the screening results for each condition is given in Table 2. In discussing these figures, a number of preliminary points might well be made at this stage.

The number of cases benefiting from a screening clinic is determined by the number screened positive who can be motivated to see their physician for a complete diagnosis. Those who do not see their physician for a confirmation of the screening results defeat the major purpose of a screening clinic—to get the asymptomatic cases under treatment.

In the Baltimore Health Survey 45 per cent of the persons referred by a letter to their physicians because of a previously unknown abnormal finding did not visit their physician. While, as mentioned previously, this figure compares favorably with other screening clinics, it is apparent that a means of motivating more persons to visit their physicians must be investigated.

The efficiency of the screening test itself is partially shown by the number of cases confirmed by the physicians (column 7), divided by the number of positive screeners with a completed medical follow-up (column 6). However, the persons who actually benefit by the screening procedure are those whose conditions are previously unknown to their physicians and who are placed under medical supervision as a result of the referral (column 9). These latter are comparatively small in number, according to our follow-up data.

This has produced an unexpected problem for which we are not sure of a practical solution. All the screeners referred on the basis of the positive test had stated that they were previously un-

TABLE 2  
Summary of Screening Test Results

Conditions for which screened	Persons screened*	Positive results		Referred to physician		Follow-up with physician completed	Confirmed by physician to have condition		Condition previously unknown to physician	
		No.	Rate per 1000 persons screened	No.	Rate per 1000 persons screened		No.	Per cent of those with completed follow-up		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Diabetes.....	1,916	15	7.8	14	7.3	9	5	55.6	4	44.4
Heart Disease (EKG).....	2,020	247	122.3	194	96.0	128	43	33.6	16	12.5
Heart Disease (X-ray).....	1,767	182	103.0	155	87.7	67	29	43.3	8	11.9
Heart Disease (Questionnaire).....	1,898	113	59.5	78	41.1	42	17	40.5	5	11.9
Hypertension.....	2,021	150	74.2	67	33.2	41	31	75.6	11	26.8
Proteinuria.....	1,946	88	45.2	79	40.6	37	8	21.6	4	10.8
Syphilis.....	1,949	53	27.2	53	27.2	14	4	28.6	1	7.1
Anemia.....	1,980	32	16.2	29	14.6	13	8	61.5	7	53.8
Tuberculosis.....	1,767	34	19.2	28	15.8	16	2	12.5	2	12.5
Other chest.....	1,767	64	36.2	50	28.3	17	2	11.8	1	5.9
Obesity.....	2,021	106 abnormal, and previously unaware of condition								
Impaired vision.....	2,006	530 abnormal, even with present glasses								
Impaired hearing.....	2,016	76 abnormal, and previously unaware of condition								

\* Excludes persons not receiving a test and those for whom the test result was unsatisfactory.

aware of the condition at which the test was aimed. Nevertheless, of 43 persons who had positive electrocardiograms and confirmed to have heart disease, only 16 were stated by the physician to be previously unknown.

There are perhaps three possible explanations:

1. Many of the screeners had not been told by their physicians of their heart disease, or had misunderstood what their physicians had said.

2. The screeners had known of the condition, but had denied it when they attended the clinic.

3. The physicians had misinterpreted the questionnaire mailed to them, and had mistakenly marked the condition as previously known when, in fact, this was a previously unknown condition.

In summary, the relatively low yield of each test among persons with a completed follow-up in terms of newly discovered cases was not necessarily a fault of the test itself, but was partly due to our inability to find a method of determining when the condition was previously unknown, in the positive screener.

It should also be pointed out that the number of cases confirmed by the physician (column 7) no doubt is somewhat of an understatement, since in a number of instances the physicians indicated that time did not permit final diagnosis.

A number of the tests appear to have a fairly satisfactory performance using the criteria of the proportion confirmed. These are the tests used for diabetes, heart disease (all tests), hypertension and anemia. None of these tests produced an unduly large number of false positives.

Those tests with a poor performance appear to be the tests for proteinuria, syphilis and "other chest" conditions. There appears to be a considerable proportion of transient proteinuria in persons attending the screening clinic, whose tests are not found positive by their physicians. The serological test for syphilis apparently finds numbers of serum fast cases who do not need further treatment. The chest roentgenogram appears to detect many transient conditions or conditions with little clinical significance.

In a separate category is the chest x-ray for tuberculosis. The seriousness of the condition detected, both to the individual and to the community, justifies the relatively large number of false positives who are found not to have tuberculosis.

#### THE COST OF MULTIPLE SCREENING

There were considerable periods of time when the clinic workers were not kept busy, because of the unexpectedly low attendance of the screenees. Since much of the cost of screening was in salaries, this situation considerably raised the expense of the procedure.

The preliminary cost estimates which follow include the funds actually spent by the Commission, and the estimated cost of material, labor and other services contributed by other organizations. Money spent by the Commission for research purposes only, such as the cost of the statistical analysis of the results, is not included in the following figures.

Expressed in two ways, the costs are as follows:

\$10.63 per person screened

\$38.98 per person referred for further examination.

It must be remembered that we did not refer persons with abnormal obesity, hearing or vision (unless, of course, they had additional abnormalities) although the cost of these tests are included in the above figures. If these persons were referred the cost per person referred would have been cut approximately in half.

Even when it is considered that the clinic was capable of testing an additional 50% of persons

at little extra cost, it would still appear that multiple screening is quite an expensive procedure. The costs could, of course, be moderately reduced if the clinic were in continuous operation throughout the year, instead of opening for only a few weeks. Nevertheless, the expense of the procedure is one of the factors which must be carefully considered by a community before undertaking such an operation.

#### SUMMARY

The Baltimore multiple screening clinic provided information which was helpful to the Commission in its study of the health problems of a sample of the city population. The screening tests for diabetes, heart disease, hypertension, anemia, and tuberculosis had a fairly satisfactory performance. Those for proteinuria, syphilis, and "other chest" conditions gave unsatisfactory results. The expense of multiple screening is one of the factors to be carefully considered by a community before undertaking such an operation.

*Commission on Chronic Illness  
615 North Wolfe Street  
Baltimore 5, Maryland  
Drs. Roberts, Wylie and Glasser*

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# Component Medical Societies



## ALLEGANY-GARRETT COUNTY MEDICAL SOCIETY

LESLIE E. DAUGHERTY, M.D.

*Journal Representative*

### Library

The late and beloved Sir William Osler said: "Books are tools, doctors are craftsmen and as truly as one can measure the development of any particular handicraft by the variety and complexity of its tools, so we have no better means of judging the intelligence of a profession than by its general collection of good books."

A physician who does not use books and journals, who does not need a library and who does not read one or two of the best monthly journals, soon sinks to the level of the cross-counter prescriber and not alone in practice, but in those mercenary feelings and habits which characterize a trade.

As of January 1, 1956, the Memorial Hospital, of Cumberland, has a Library; modest to be sure, with provisions for the collection of old and rare books, instruments and medical lore.

#### Members of the Library Committee:

Dr. William Alfred Van Ormer  
Dr. Abraham Mirkin  
Dr. Thomas Robinson  
Dr. Leslie E. Daugherty, *Chairman*

### Grievance Committee

At the November meeting, a motion was made, duly seconded and passed to appoint a Grievance Committee, as constituted by the Medical and Chirurgical Faculty and the American Medical Association.

Organization was accomplished in December and since then several meetings have been held. Committee work has been carried on under subtitles of Public Relations, Insurance, Indemnity and Malpractice, Fees, Hospital Relationship, Medical Care and Newspaper Coverage.

#### Members of the Committee are:

Dr. William F. Williams  
Dr. William Oliver McLane

Dr. Leo H. Ley, Jr.  
Dr. John B. Devers  
Dr. Samuel G. Weisman  
Dr. Leslie E. Daugherty, *Chairman*

### Flying Physicians

Dr. W. Royce Hodges, of Cumberland, was elected Secretary of the Southern Section of the Association Flying Physicians, which organized in Houston, Texas, on November, 1955, with a nucleus of 130 members.

The parent organization began in June 1955, at the Annual Session of the American Medical Association, in Atlantic City and composes several hundred members.

Dr. Hodges has been flying for ten years, making regular trips to the Leahy Clinic, in Boston and The Johns Hopkins Hospital, in Baltimore. He flies a Navion plane. At the Houston meeting, he was accompanied by Dr. Ralph Roth, resident in radiology at The Johns Hopkins Hospital and formerly of Cumberland.

Dr. Hodges limits his practice to obstetrics and gynecology.

He is a member of the Staff of the Memorial Hospital, Cumberland, Maryland.

### Personals

Dr. John B. Davis, of Frostburg, was recently appointed Health and Safety Chairman of the "Nemacolin" District, Boy Scouts of America.

Nemacolin District is composed of the combined Cumberland and Mountain Districts. Eleven hundred and eight boys make up the Scout movement. The Nemacolin Trail, after which the Scouts take their name, began as the Old Indian Trail leading from Fort Cumberland to the Ohio River, at Pittsburgh.

Dr. Davis will look after the health and welfare of these boys.

Dr. Charles C. Zimmerman and wife, Cumberland, spent the months of January and February aboard the Ship, U.S.S. President Wilson, cruising Pacific waters. They made stops in Hawaii, Japan, the Philippine Islands and Hong Kong.

**BALTIMORE CITY MEDICAL SOCIETY**

CONRAD ACTON, M.D.

*Journal Representative*

A regular meeting of the Executive Board, held 22 November gave consideration to the status of Associate Members in regard to Physicians Defense. Associate membership is provided primarily for physicians who are not licensed in the State of Maryland but who wish to be associated with the regular medical organization. Physicians Defense does not cover them because they are not licensed to practice. Practicing medicine without a license is illegal. Presumably the employers of unlicensed physicians can provide liability insurance as for any other employee.

Our "President's Meeting" on December 2 was an active affair, from the staccato business session to the enjoyable supper with the Auxiliary afterward.

Dr. Moses Paulson, chairman of the Constitution Committee, re-presented the By-Laws. They were passed as submitted.

Ex-president Wetherbee Fort presented a gavel to retiring President Amos R. Koontz with facile and fitting encomiums. Dr. Amos R. Koontz has with force and vigor lead our organization's advance among its varied concerns. He has been a fine president.

Chairman Lewis P. Gundry presented the list of nominations for office for the coming year. In the absence of other nominations from the floor, they were declared unanimously elected, and the secretary was directed to cast a ballot accordingly. Dr. Gundry then made a plea for support of the Committee next year. He reminded us that there are approximately thirty-five nominations each year. He made the point that the past presidents are not always in a position to know whom the new and/or interested members may be. It is desired that representation in the offices of the Society and on the various committees be as broad as possible and extend as far through all parts of the Society as it is practicable. Suggestions as the identity of physicians who are interested in helping carry on the work and forwarding the interests of the Society will be welcome. So those members who are especially interested and willing to work, or who may want to speak in behalf

of another, please be sure to tell one of the five immediate past presidents.

The scientific part of the program featured a panel on gastric ulcer. The moderator, Dr. Calvin Smyth, Professor of Surgery at the University of Pennsylvania gave his statistics ably and conservatively. He stressed the finding that in some cases when the 'mother' tumor had been removed, metastases remained latent for many years, long enough to let the patients succumb to other causes. Dr. William F. Rienhoff, Jr., presented his views and Dr. Samuel Morrison, speaking for the gastro-enterologists, asked many pertinent, and seemingly unanswerable, questions. Questions from the audience were many and pertinent, continuing the meeting for another hour.

The buffet this year was managed by the Woman's Auxiliary to whom appreciation for a fine spread and enjoyable social hour is well deserved.

The final meeting of the Executive Board under the leadership of President Koontz was held on Tuesday, December 27. Many of the loose ends of organizational business were reported and cleared or continued. It was agreed that the regular meetings of the Board for 1956 would remain on the fourth Tuesday of the month.

Dr. Wilgis reported on the activity of the Committee on Hospital Accreditation. He stated that a full report had been turned over to the Faculty Council. The methods of inspection and scoring were reviewed and recommendations made in connection with these two matters. Recommendations have also been made regarding approval of residency training programs and requirements for hospital staff organization. The Board recorded its thanks to Dr. Wilgis and his committee for their hard work.

Dr. Kerr's letter regarding establishment of General Practice Sections in hospitals, and other matters in connection with General Practice, was read along with a questionnaire which he proposes to send to every hospital administrator. It was moved that he be encouraged to collect information from hospital heads and advise the Board in advance if any action is contemplated.

Dr. Paulson, Chairman of the Committee on Constitution and By-Laws, was authorized to go ahead with the printing and indexing of the present statutes.

Two form letters from Dave Elman of Passaic, New Jersey offering a course in "Medical Hypnosis" were referred to the Neuropsychiatric Section for investigation and report.

Proposals to extend Blue Cross and Blue Shield to dependents of members of the Armed Forces were discussed and the President and Secretary appointed representatives to a meeting of the Faculty's Executive Committee regarding the proposal.

The first meeting of the Baltimore City Medical Society under the presidency of Dr. Grant E. Ward was held Friday, January 6 in Osler Hall. Prior to the meeting The Executive Board, the Speakers, and the Program Committee had their usual dutch treat dinner at the Maryland Club. President Koontz has made this conveniently available throughout the year and will continue to do so. President Koontz also invited to this occasion Major General Silas B. Hayes, Surgeon General of the United States Army, and the chairmen of all the committees who had helped him through the year. President Ward continued the custom of having the officers of a County Medical Society as the City Society's guests for the evening. The Baltimore County Medical Association was ably represented by Dr. Warthen, president, of the Medical and Chirurgical Faculty; Dr. Charles Lee Randolph, Secretary-Treasurer.

General Hayes and Dr. Koontz were called on and spoke briefly at the start of the meeting. After the election of twenty-seven new members, the scientific program on poliomyelitis vaccination was presented.

Dr. Edward Davens, moderator, is Chief of the Maryland State Health Department's Bureau of Preventive Medicine and Maryland liaison officer for the National Vaccine Distribution Plan. His discussion and analysis of each paper added measurably to them.

Dr. David Bodian, Associate Professor of Epidemiology at The Johns Hopkins University School of Medicine and a member of the National Advisory Committee on Poliomyelitis Vaccine outlined with caution and conservatism the research attitude toward what has been done. He inferred conclusions both from the Association's mass testing techniques of last summer and the Cutter "incident." He postulated that a repetition of such a happening was 'impossible' and was pleased that control agencies

were now as much involved in supervision of methods used as of the products sold.

Dr. Alexander J. Schaffer, Associate Professor of Pediatrics at Johns Hopkins and member of the State Advisory Committee on the Salk Vaccine Distribution, spoke, as a clinician. He described Dr. Bodian's early (1930) work in establishing the three main immunologic strains of the virus. Incidental complications were dismissed with short shrift.

Dr. Laurence Finberg, Assistant Director of Pediatrics at The Baltimore City Hospitals, who was directly responsible for the diagnosis and treatment of patients in the Communicable Disease Ward, succinctly presented the criteria for differential diagnosis. Because of the tremendous importance of the proper diagnosis in the far-flung statistical empire surrounding the polio problem, change in titre was considered conclusive in borderline cases.

The discussion period that followed was prolonged and showed keen audience interest.

Coffee and doughnuts served by the Woman's Auxiliary were very tasty and refueled the many small groups after the formal discussion ended.

#### CECIL COUNTY MEDICAL SOCIETY

MILFORD H. SPRECHER, M.D.

*Journal Representative*

Dr. Wallace Garner Obenshain, Cecilton, Maryland, was elected president of the Cecil County Medical Society and Dr. H. V. Davis vice president at a recent meeting of the society. Dr. Klaus Huebner of North East remains as secretary-treasurer.

Dr. Obenshain entered general practice at Cecilton in 1950. His practice was interrupted by 18 months in the U. S. Air Force, six months at Mitchell Field, N. Y. and one year in Germany. He resumed his practice in 1954 and is active locally, but assumes his full share of hospital responsibilities.

Dr. Obenshain was born in Covington, Virginia, one of three brothers and two sisters. His mother was a school teacher and his father a mill hand. He graduated from high school in 1941 and went with the US Coast and Geodetic service as a surveyor, 1942-43. He spent 1943 to 1946 in the U. S. Army, one year as a medical corpsman and two years in the A.S.T. After his army service, he entered

Georgetown University Medical school and was graduated in 1949. Internship was taken at Lancaster General Hospital in Lancaster, Pennsylvania.

### FREDERICK COUNTY MEDICAL SOCIETY

LOUIS R. SCHOOLMAN, M.D.

*Journal Representative*

The December meeting was held at the Frederick Hotel on the twentieth. Dr. Isadore Tuerck, superintendent of The Spring Grove State Hospital spoke on chronic alcoholism. The well conceived and delivered talk stimulated considerable discussion. At the close of the meeting the retiring president Dr. Thomas H. Quill thanked his supporting officers and committees and turned over the gavel to his successor Dr. Norvell Belt.

### HOSPITAL EVENTS

The December meeting of the Medical Staff was held December 5. Following the business session three interesting cases were presented. Dr. Lea described a case of severe bleeding from the bowel in a ten year old male which was treated successfully by excision of the polyp and fulguration of the base through a sigmoidoscope. Dr. Culler presented a case of melaena in a ten month old female. A Meckel's diverticulum was demonstrated by barium enema and proven at operation. The X-ray diagnosis of Meckel's diverticulum was discussed by Dr. Reid, roentgenologist. The final case given by Dr. Chase was that of a sixty year old male with chronic myelogenous leucemia treated with Myleran. Dr. Reid then discussed the roentgen therapy of chronic leucemia.

The case presented at the December Clinical-Pathologic-Conference was that of a forty-eight year old male admitted in coma. The present illness of eight days was suggestive of both intracranial hemorrhages and a space occupying lesion. It turned

out to be a renal carcinoma with multiple hemorrhagic metastasis to the brain.

The Woman's Auxiliary of the Frederick Memorial Hospital gave its fourth annual Snowball on December 19. I was certain at the time it would be a great financial success by the "claustrophobia" I felt when trying to dance. Over \$10,000 was cleared.

The Auxiliary devoted the proceeds from the first two Balls to the installation of air conditioning in the operating rooms. The profits from the third was spent on overall hospital equipment. Their present project is the replacement of worn out and obsolete laundry equipment. The estimated cost is \$25,000.

The large sums cleared and necessary projects accomplished present a dramatic picture. Yet many of the charter members of the Auxiliary feel that the daily hospital stint of the many devoted members, totaling 1200 hours monthly, is the more important contribution.

### PRINCE GEORGE'S COUNTY MEDICAL SOCIETY

HANS WODAK, M.D.

*Journal Representative*

The Prince George's County has elected the following officers for 1956:

President	William B. Hagan, M.D.
Vice President	Hans Wodak, M.D.
Corresponding Secretary	John Kehoe, M.D.
Recording Secretary	Lloyd Hughes, M.D.
Treasurer	Frederick E. Musser, M.D.
Delegates	Wolcott Etienne, M.D.
Alternates	Waldo B. Moyers, M.D.
Censors	John S. Haught, M.D. Benjamin S. Miller, M.D. John T. Maloney, M.D., Chairman (1956) Aaron Deitz, M.D. (1957) Robert McCeney, M.D. (1958)

Maryland State Medical Journal Representative and Advisor to Ladies Auxiliary—Hans Wodak, M.D.

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## Necrology

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### **Anna Schultz Abercrombie, M.D.** **1872-1955**

Dr. Abercrombie started her education in the old Scheib School, the Parochial School of the Zion Church and went on to graduate from the University of Pennsylvania. She was Resident Physician at the Good Samaritan Hospital on McCulloh Street starting in 1905, and assisted in the instruction in the Women's College of Maryland which centered in that Hospital until its disbandment in 1909. On June 30, of that year she married the Dean of the Medical School, Dr. John Robert Abercrombie, and continued her medical activities in institutional work, including positions as School Physician to the Girl's Latin School, Park School, and the State Teachers' College. Twenty-five student generations graduated as better teachers, because Dr. Abercrombie had ingrained in them an awareness of the importance of health in a full rounded life. She had a great influence on so many because of the very generous use of her home with Dr. John on Greenmount Avenue as a gathering place for young people at dinners and parties, where they met civic leaders and personages of her wide acquaintance.

A very important contribution was her innovation of medically examining women prisoners brought into the Police Courts of Baltimore City.

Dr. Abercrombie was a member of the Baltimore City Medical Society and the Medical and Surgical Faculty of Maryland. She was very interested in the work of Grace and St. Peter's Protestant Episcopal Church and countless projects for social betterment.

A.S.C.

### **James Bordley, Jr., M.D.\*** **1874-1956**

Dr. James Bordley, Jr., ophthalmological specialist, antiquarian and member of a family for

Memoir Committee: A. S. Chalfant, M.D., *Chairman*, John F. Hogan, M.D. and Robert H. Riley, M.D.

\* Reprinted by courtesy of *The Sun*, Baltimore 3, Maryland.

generations distinguished in Maryland medicine, died at his home in the Greenway apartments after an illness of only three days. He would have been eighty-two years old on February 20.

The fourth James Bordley to have practiced medicine in the State and the father of two sons in the profession, Dr. Bordley was almost equally known for his passionate interest in things of the past and for his collections of memorabilia generously shared with historical and cultural institutions.

As late as 1953, after he had retired from the active practice of his medical specialty, he was given a national citation by the American Association for State and Local History in recognition of his contributions toward the preservation of Maryland antiquities and his fostering of interest in all things historical.

Dr. Bordley was born in Centreville on February 20, 1874, the fourth of the Bordleys to practice medicine on the Eastern Shore. His father, grandfather and great-grandfather followed the profession before him.

After early education in the Davis Military Academy, he went on to the University of Maryland, taking his medical degree there in 1896. He interned in Baltimore City Hospitals and returned to Centreville for a brief period of general practice.

But his interest was in specializing, especially in ophthalmology, and he came to Baltimore to work with and study under men of distinction in the field. Among the specialists with whom his early studies were linked were Dr. Harvey Cushing, Dr. Samuel Theobald and Dr. Hiram Woods, all physicians of national fame.

He conducted his own original research and in time became chief surgeon of the old South Baltimore Eye and Ear Hospital. It was largely through his efforts and those of Dr. Harry Peterson that the institution was reorganized and expanded to become the present South Baltimore General Hospital.

Professionally his recognition was national in scope. He became president of the American

Ophthalmological Society and was certified by the American Academy of Ophthalmology and Otolaryngology as well as by the American Ophthalmological Society.

During the first World War, Dr. Bordley served with the Army Medical Corps with the rank of colonel. Returning from military service, he became director of the Institute for the Rehabilitation of the War Blind, also known as the Evergreen School for the Military Blind, established on what is now a part of the campus of Loyola College.

Paralleling his professional and military interests was a developing concern with records of the past, especially as they touched on Maryland history.

He studied arts and crafts native to the State and put together collections of authentic furniture, portraits, costumes and manuscripts which later he presented to the Maryland Historical Society of which he was a zealous member. He also gave substantial financial support to the organization.

As Chairman of the Committee on Colonial Properties of the Board of Visitors and Governors of St. Johns College, Doctor Bordley was an effective influence in preserving the famous Hammond-Harwood House in Annapolis as a museum and shrine.

He was also a founding trustee of the Baltimore Museum of Art and one of the institution's active supporters.

He is survived by his wife, Mrs. Margaret Carroll Hollyday Bordley; a daughter, Mrs. Charles A. Webb, and two sons, Dr. James Bordley 3d, physician-in-chief at the Mary Imogene Bassett Hospital in Cooperstown, New York, and Dr. John E. Bordley, of Baltimore. A brother, Worthington Bordley, and seven grandchildren also survive.

### **Albert J. Bossyns, M.D.**

**1874-1955**

Albert J. Bossyns was born in New York City on January 23, 1874. His father moved to Baltimore and became a well-known contractor with a part in the construction of The Johns Hopkins Hospital. Dr. Bossyns took his education in the Baltimore public schools and then graduated from the Maryland College of Pharmacy in 1893, going on to take his M.D. from the University of Maryland in 1898. His private practice was relatively brief before entering the service of the B. & O. Railroad as

Medical Examiner, which office he held until his retirement in 1946.

Dr. Bossyns was a member of the Medical and Chirurgical Faculty of Maryland and the American Medical Association. His wife, Mary J. Bauernschmidt Bossyns died in 1933. He is survived by three sisters, Miss Angeline F. Bossyns, Mrs. Louise M. Kaltenbach, and Mrs. Catherine A. Barre.

A.S.C.

### **Samuel James Crowe, M.D.**

**1883-1955**

A Virginian by birth, son of a physician, graduate of the University of Georgia (1904), bent on becoming an engineer but persuaded by his father to study medicine; faltering in allegiance to medicine during his first year at Johns Hopkins until, by accident encountering Professor William Halsted in a peculiarly personal way he fell under the spell of that great man and became his ardent disciple. Following graduation from Medical School (1908), Dr. Crowe was a member of the resident Surgical Staff. He worked very closely with Dr. Harvey Cushing both in laboratory and operating room. Just as he was about to go with Dr. Cushing to Harvard for a career in brain surgery, Dr. Halsted dramatically altered the course of his life by persuading him to accept the directorship of the newly planned division of Otolaryngology, a subject about which he knew nothing.

Immediately Dr. Crowe went abroad to study under the leaders in his new field, notably Professors Barany and Killian. Upon returning to Baltimore in 1912, he began to gather about him a staff of younger men. So began the first great clinic of Otolaryngology in this country, conceived in the grand perspective of general surgery, pervaded by the spirit and example of its head, an oasis in the desert of medical practice. One of his first undertakings was a thorough study of tuberculosis with reference to the tonsils and cervical lymph glands; then the establishment of the Otological Research Laboratory; the development of treatment and prevention of deafness by using radium; improving hearing opportunities through the Hearing and Speech Center. As consultant to the Army Air Force, he visited all quarters of the globe, advising and teaching new techniques.

During the two years of his retirement (?) he was diligently engaged in compiling a history of the

Surgical Department of the Johns Hopkins University—a subject dear to his heart and for which he was eminently qualified. This task was completed the very day his last illness struck.

One of the happiest days of Dr. Crowe's life was when Johns Hopkins University recognized his achievements and contributions by conferring on him the degree of Doctor of Science. In presenting him for this honor Dr. Edwards Park used this brilliant description, "Taciturn, shy, with heart of gold, unconscious of himself in his consecration to ideals, skilled surgeon, foremost explorer and acknowledged intellectual leader in his subject, teacher of teachers, in his inner demand for perfection in the mold of his great master, the life and light of his department, a constant joy to his friends, bulwark to his colleagues and pride to the Medical School."

HARRY R. SLACK, M.D.

**Joseph L. Lilienthal, Jr.**  
**1911-1955**

Dr. Joseph L. Lilienthal, Jr., Professor of Environmental Medicine and Associate Professor of Medicine in The Johns Hopkins University and Physician to The Johns Hopkins Hospital, died suddenly November 19, 1955. A graduate of The Johns Hopkins School of Medicine, Dr. Lilienthal was a house officer at the Presbyterian Hospital, New York, and resident in medicine at the Johns Hopkins Hospital. Following service in the United States Navy, during which he conducted research in respiratory physiology, he returned to The Johns Hopkins Medical Institutions to become head of the Physiological Division of The Department of Medicine.

In 1950, the Department of Environmental Medicine succeeded the Department of Physiological Hygiene in The Johns Hopkins School of Hygiene and Public Health and Dr. Lilienthal became its first chairman while retaining his positions and responsibilities in the School of Medicine and the Hospital. In his various official capacities he was at once administrator, clinician, teacher and investigator. His research, mainly in respiratory and neuromuscular physiology and disease, is reported in more than 50 contributions to the medical literature.

Dr. Lilienthal served on the editorial boards of the *Journal of Clinical Investigation*, *Psychosomatic*

Medicine, *Proceedings of the Society for Experimental Biology and Medicine*, and the *Journal of Chronic Diseases*. He was consultant to the armed forces, the Veterans Administration and the National Science Foundation, member or chairman of advisory committees of the National Research Council, the Research and Development Board, the physiology study section of the National Institutes of Health, the Muscular Dystrophy Associations, and others. His society memberships included the American Physiology Society, Society for Clinical Investigation, Association of American Physicians, Clinical and Climatological Association, and Interurban Clinical Club.

Although the bare history of his official duties gives a picture of a crowded and useful life, he is remembered for more than this. He was many things to many people. To all who knew him here and abroad he was obviously a quick-witted perceptive man of enormous vigor and bottomless humor. His extraordinary memory and his vast depots of information in medicine and the basic sciences helped make him a stimulating teacher, a penetrating critic, and an investigator with a talent for going to the heart of a problem. He retained a capacity for indignation at injustice and the courage to speak and act in accordance with his principles of fair-play and respect for human dignity, even when it was unpopular to do so. He has left an impressive life of accomplishment and he remains a live memory among those who cherished his counsel, his thoughtfulness, his sensitivity and the security that what he said and did was right.

KENNETH L. ZIERLER, M.D.

**Frank Ebaugh Mason, M.D.**  
**1893-1955**

Dr. Frank E. Mason died November 20, 1955, at his home in Easton after a short illness. For thirty years he served as a physician with the Veterans Administration. Before he retired in 1951, Doctor Mason served as chief medical officer of the Cambridge, Maryland Regional VA office for four years, and for six years before that he was at the Fort Howard Hospital. He also served in veterans' hospitals in Pennsylvania, Vermont, North Carolina and Massachusetts.

After his retirement from the VA, Dr. Mason practiced in Easton and was a member of the staff

at Memorial Hospital. He was also a member of Landmark Lodge 127, A.F.&A.M., Baltimore, the Elks, the V.F.W., the Talbot County Country Club; the Talbot County Medical Society, and the Medical and Chirurgical Faculty of Maryland.

Doctor Mason was born in Easton and graduated from Easton High School, attended St. John's College, and was graduated from the University of Maryland School of Medicine. During World War I, he served in France with the 27th Infantry Division.

Surviving are his wife, Mrs. Edna McGahey Mason; two children, Frank E. Mason, Jr., and Ruth Ann Mason. A sister also survives. A.S.C.

### **Charles Frederick Snyder, M.D.**

**1884-1955**

Dr. Snyder was born Karl Friederich Schneider, May 19, 1884 in Accident, Maryland, of Hessian-Bulgarian parents.

His parents came to America, where his mother practiced midwifery.

His father was a farmer and a talented musician with intense religious convictions. These talents were

transmitted to his son and his inheritance from both parents made him both religious and gave him a great desire to help those in distress.

Money was never his goal and he administered both skill and wordly goods upon his patients. After graduating from Frostburg State Normal School, he taught school in Garrett County for several years and then entered Baltimore Medical College, graduating in 1912.

He served as an interne at the Maryland General Hospital for one year and then located in his home town, Accident. He came to Cumberland in 1919 and became associated with the late Dr. James T. Johnson, Sr.

Dr. Snyder was plant physician at the Celanese Corporation, for fifteen years, retiring in 1947 to his cottage on Deep Creek Lake, in Garrett County. He was of a retiring disposition, but loved to hunt and fish.

He was a member of the Staffs of both the Sacred Heart Hospital and the Cumberland Memorial Hospital, while active.

The narrator remembers him as a kind, considerate physician; his life truly dedicated to his fellow man.

LESLIE E. DAUGHERTY, M.D.

### **Marion Evans Wilson, M.D.**

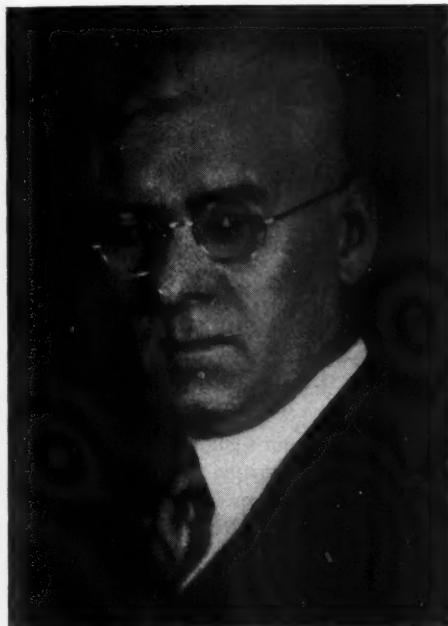
**1906-1956**

Dr. Wilson was born in Indianapolis, Indiana, October 8, 1906, graduated in medicine at the Indiana Medical School in 1931, and took his internship and residency in medicine and Surgery successively at the Provident Hospital ending in 1936.

In that year he began an active practice with surgical specialization. Dr. Wilson was a Fellow of the American Chirurgical Society, and a member of the Baltimore City Medical Society and the Medical and Chirurgical Faculty of Maryland.

Devoted to his work, emotionally intense, Dr. Wilson held ideals of performance which made commonplace living impossible for him. The stress of his practice was somewhat relieved by an exceptionally well played game of golf, for which he had several awards. His farm at Deal, Maryland, and an active membership in the Grace Presbyterian church were also focuses of great personal interest. His unexpected death was a great shock to his many friends.

A.S.C.



DR. CHARLES FREDERICK SNYDER

1884-1955

Cumberland, Maryland

**Herbert E. Zepp, M.D.**  
**1877-1956**

Dr. Herbert E. Zepp died December 2, 1955, in Baltimore. A native of Howard County, Dr. Zepp was born October 9, 1877, near Clarksville.

He was president of the Central Bank of Howard County, at Clarksville, for many years and was made honorary president in 1953.

Dr. Zepp attended schools in Howard County and in 1904 graduated from the University of Maryland School of Medicine. Before setting up practice in Walbrook, he practiced three years at St. Michaels on the Eastern Shore. During his career, he delivered 4,224 babies.

He was a member of Boumi Temple, the Walbrook Methodist Church, and the Medical and Chirurgical Faculty of Maryland.

Surviving are his wife, Mrs. Grace Linwood Northam Zepp, and several nieces and nephews.

A.S.C.

The Committee wishes to acknowledge the contribution of the following authors of previous memoirs in the JOURNAL: Conrad Acton, M.D.; Robert vL. Campbell, M.D.; Henry T. Collenberg, M.D.; Ernest S. Cross, M.D.; William B. Culwell, M.D.; Melvin B. Davis, M.D.; Ernest H. Gaither, M.D.; W. Grafton Hersperger, M.D.; Nathan E. Needle, M.D.; Sidney Novenstein, M.D.; Isadore A. Siegal, M.D.; and Harvey B. Stone, M.D.

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**LIBRARY RULES**

Library of the Medical and Chirurgical Faculty of the State of Maryland

1. The library's collection is open to the public for consultation in the library.

**BORROWING PRIVILEGES**

2. *Free* borrowing privileges, subject to the library rules, shall be accorded members of the Faculty and non-profit libraries.
3. Guest cards may be granted, upon request of a Faculty member, and bearing his signature, to the following:
  - (a) Visitors to the city
  - (b) Undergraduate medical students
  - (c) Assistants personally employed by a member who are not themselves eligible for membership.

In no case shall they be given for a period exceeding a year without renewal.

4. The librarian shall have authority to confer temporary free borrowing privileges at her discretion.
5. Borrowing privileges may also be accorded to commercial firms contributing to the support of the library.

**RULES ON BORROWING**

6. Books and journals may be borrowed for four weeks and may be renewed on request, provided the material is not requested by another borrower.
7. Reference works, works more than one hundred years old, and any other material designated as restricted to use in the library shall not be lent.
8. Readers shall not take books or journals from the library without signing for them.
9. Loans shall be signed for by the borrower personally, but a written request sent by messenger shall be accepted, provided the request bears the borrower's signature. (In cases where the same messenger is sent repeatedly it is not necessary once the identification has been made.)
10. Loss of, or damage to, the library's books or other property shall be assessed by the library administration and the specified compensation be made by the borrower responsible.

Approved by Library Committee  
 October 19, 1955

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# Library



"Books shall be thy companions; bookcases and shelves, thy pleasure-nooks and gardens." *ibn Tibbon*

## LIBRARY CHATTER

MARY EMILY BERGE

While working on our gift record the other day we decided a special word of appreciation would be in order for devoted friends of the library who regularly and consistently donate books and journals. In some cases our entire file of a journal has been built up by these generous donors. So thank you again, Dr. Maurice Feldman, Dr. Amos Koonz, Dr. J. Earle Moore, the Williams and Wilkins Co., Mr. William Wiscott, and Dr. Henry L. Wollenweber!

Dr. Stewart M. Wolff has presented a number of books to us from the library of his father, the late Thomas Conrad Wolff. Dr. Thomas Wolff was a member of the Baltimore City Medical Society for twenty-five years.

The Baltimore chapter of the Special Libraries Association has added a book to the library in memory of Helen Wheeler, a former member of the

association and former librarian of the Faculty. "Heart disease and industry" by Meyer Texon is a valuable addition to our growing collection of literature on medicolegal problems.

Some other recent additions to the library include Williamson's "Office procedures," which should be of particular interest to county members; Barborka, "Peptic ulcer"; Moragues and Lynxwiler, "Cardiac anomalies"; Standish, "Why patients see doctors"; Twiss and Oppenheim, "The liver, pancreas, and biliary tract"; Reese, "Tumors of the eye"; Hardy, "Fluid therapy"; Flint, "Emergency treatment and management"; Gorsich, "Proctologic anatomy"; Luisada, "Heart," the second edition; Master, Moser, and Jaffe, "Cardiac emergencies and heart failure"; and two titles which should be very stimulating, Crile's "Cancer and common sense" and the symposium, "Should the patient know the truth?" edited by Standard and Nathan.

# Health Departments

## BALTIMORE CITY HEALTH DEPARTMENT

### The Degenerative Disorders and the Public Health

In his analysis of Baltimore's health in 1955 reflecting on his studies of cancer mortality and deaths from cardiovascular diseases, Dr. Matthew Tayback, Director of the City Health Department's Statistical Section has struck a deep philosophical note. In effect, he says that no city can or should aim for a zero death rate. As the population grows older, as relatively fewer die of preventable or communicable diseases in their youth or in middle age, it is inevitable and to be expected that the death rates for the degenerative diseases of old age should rise. This is what is happening and it is as natural as can be.

Dr. Tayback's review of the status of cancer and the cardiovascular diseases in the community follows: "There is much discussion concerning the need to devote public health skills to the control of death and disability arising from degenerative disorders such as the cardiovascular diseases, cancer, and arthritis. Conditions affecting the cardiovascular system including vascular lesions of the central nervous system, accounted for 55 per cent of all deaths in Baltimore during 1955. Cancer, all forms, accounted for an additional 16 per cent of deaths. These proportional mortality ratios have risen perceptibly as tuberculosis, pneumonia and influenza, and syphilis have receded as forces of mortality.

It is easily seen that the cardiovascular diseases and cancer are the major forces of mortality at work today. However, a philosophy of life must be acquired lest our statistics become senseless indicators of the problems worth tackling at present. To all men, death must come at one time or another. For those who are successful in attaining an old age, the cause of death is likely to be one of the degenerative conditions. Death from heart disease or from cancer is not necessarily an indication of a serious problem facing the community. Where death occurs in a family head, who is the principal support

of a household, or in a vigorous middle aged adult, this event becomes of a singular import to the community. In considering heart disease and cancer, it is logical to plan programs designed to minimize the loss of life and disability of individuals in middle adulthood which results from such specific entities as hypertension, coronary disease, cancer of the breast, or cancer of the stomach. The Baltimore City Health Department is exploring the techniques and knowledge which exist to determine whether rational methods now are at hand to carry on such control activities."



Commissioner of Health

## REGULATIONS GOVERNING ACCEPTANCE OF ORAL PRESCRIPTIONS FOR CERTAIN NARCOTIC DRUGS

FRANCIS S. BALASSONE\*

Pursuant to authority conferred upon the State Board of Health by Sections 353 and 368, Article 27, Annotated Code of Maryland (1955 Supplement), the following regulations, governing acceptance by pharmacists of oral prescriptions for certain narcotic drugs or compounds of narcotic drugs hereinafter specified, are hereby established as minimum requirements of the State Board of Health.

1. Pharmacists may accept oral (telephoned) prescriptions from physicians, dentists and veterinarians for the following narcotic drugs or compounds: (Note—any alkaloid herein-after named shall be deemed to include the salt or salts of the alkaloid.)
  - a. Any isoquinoline alkaloid of opium (as Papaverine, Narcotine, Narceine, Cotanine), or Apomorphine, or N-allyl-normorphine (as Nalline, Nalorphine) either alone or in combination with other active, non-narcotic drug or drugs.

\* Chief, Division Drug Control, Maryland State Department of Health.

b. Codeine, or Dihydrocodeinone (Hycodan, Hydrocodone, Dicodid, Orthoxicol) when combined with an equal or greater quantity of any isoquinoline alkaloid of opium.

- (1) *Provided*, the Codeine content does not exceed eight (8) grains per fluid ounce or one (1) grain per unit dose of the compound, or
- (2) *Provided*, the Dihydrocodeinone content does not exceed one and one-third ( $1\frac{1}{3}$ ) grains per fluid ounce or one-sixth ( $\frac{1}{6}$ ) grain per unit dose, and further provided, the Isoquinoline alkaloid of opium content is four or more times greater than the dihydrocodeinone content of the compound.

c. Codeine or Dihydrocodeinone, or Dihydrohydroxycodeinone (Oxycodone, Nucodan, Percodan, Eucodal), or Ethylmorphine (Dionin) when combined with another non-narcotic drug or drugs in recognized therapeutic amounts.

- (1) *Provided*, the Codeine content does not exceed eight (8) grains per fluid ounce or one (1) grain per unit dose.
- (2) *Provided*, the Dihydrocodeinone content does not exceed one and one-third ( $1\frac{1}{3}$ ) grains per fluid ounce or one-sixth ( $\frac{1}{6}$ ) grain per unit dose.
- (3) *Provided*, the Dihydrohydroxycodeinone does not exceed two-thirds ( $\frac{2}{3}$ ) grains per fluid ounce, or one-twelfth ( $\frac{1}{12}$ ) grain per unit dose.

(4) *Provided*, the Ethylmorphine content does not exceed one and one-third ( $1\frac{1}{3}$ ) grains per fluid ounce or one-sixth ( $\frac{1}{6}$ ) grain per unit dose.

2. Such oral (telephoned) prescriptions shall be reduced to writing by the pharmacist and contain the name and address of the patient and full directions for use. Such prescriptions *do not require the prescriber's signature*, but shall carry the prescriber's full name (as Dr. J. T. Doe), address, and narcotic registration number. These prescriptions are not refillable, and shall be so labeled. The dispensing pharmacist shall cancel (by inserting dispenser's name across the prescription) and file the prescriptions on narcotic files.

The regulations have in effect, so far as the physician and pharmacist is concerned the creation of three classes of narcotic preparations.

- a. Written Prescription Narcotics—All potent drugs and preparation under full control requiring a *written prescription before a pharmacist can deliver drug*. A written prescription must be presented before filling. *No refills can be authorized.*
- b. Oral Prescription Narcotics—Less potent taxable narcotic preparations dispensable on oral prescription. *No refills can be authorized.*
- c. Exempt Preparations—No prescription is required for exempt narcotics which can be sold over-the-counter, but federal law requires a written record of each sale in a registration book.

#### AEC TO BUILD NEW MEDICAL RESEARCH CENTER

The AMA Washington Letter, No. 84-51

Within two years the Atomic Energy Commission expects to have completed at Brookhaven Laboratory, Upton, L.I., a medical research center that will include a nuclear reactor designed specifically for medical research and treatment, a research hospital, an industrial medicine branch and research divisions in medical physics, pathology, microbiology, biochemistry, physiology and clinical chemistry. A reactor designed for medical research also is under construction at the University of California at Los Angeles. The Brookhaven reactor will provide neutrons for experimental work on brain cancer as well as shortlived radioisotopes.

STATE OF MARYLAND DEPARTMENT OF HEALTH  
MONTHLY COMMUNICABLE DISEASE REPORT

Case Reports Received during 4-week Period, January 27-February 23, 1956

	CHICKENPOX	DIPHTHERIA	GERMAN MEASLES	HEPATITIS, INFECT.	MEASLES	MENINGITIS, MENINGOCOCCUS	MUMPS	POLIOMYELITIS, PARALYTIC	POLIOMYELITIS, NON-PARALYTIC	ROCKY MT. SPOTTED FEVER	STREP. SORE THROAT INCL. SCARLET FEVER	TYPEOID FEVER	UNDULANT FEVER	WHOOPING COUGH	TUBERCULOSIS, RESPIRATORY	SYPHILIS, PRIMARY AND SECONDARY	GONORHEA	OTHER DISEASES	DEATHS
Total, 4 weeks																			
Local areas																			
Baltimore County	61	—	13	3	367	1	50	—	—	—	16	—	—	1	19	—	2	—	13
Anne Arundel	6	—	7	—	53	1	17	—	—	—	3	—	—	—	3	—	2	—	8
Howard	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	1	—	—	1
Harford	3	—	16	—	10	—	4	—	—	—	—	—	—	—	1	—	—	—	—
Carroll	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	1
Frederick	33	—	—	1	41	—	—	—	—	—	1	—	—	—	5	—	1	—	2
Washington	—	—	—	—	9	—	2	—	—	—	—	—	—	—	8	1	1	—	—
Allegany	2	—	—	—	26	2	—	—	—	—	1	—	—	4	2	—	—	m-3	1
Garrett	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
Montgomery	24	—	—	2	47	—	8	—	—	—	12	—	—	—	4	—	3	—	6
Prince George's	26	—	1	2	37	1	13	—	—	—	6	—	—	1	15	—	3	m-3	6
Calvert	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	1
Charles	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	2
Saint Mary's	40	—	2	—	35	—	—	—	—	—	1	—	—	—	3	—	1	—	1
Cecil	1	—	—	—	—	—	—	—	—	—	—	—	—	1	3	—	—	—	2
Kent	29	—	—	—	1	—	2	—	—	—	—	—	—	1	1	—	1	—	1
Queen Anne's	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Caroline	—	—	—	—	—	—	—	—	—	—	7	—	—	4	—	—	5	—	—
Talbot	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	1
Dorchester	—	—	—	—	1	—	1	—	—	—	—	—	—	—	1	—	3	—	2
Wicomico	19	—	—	2	2	—	—	—	—	—	2	—	—	—	1	—	8	t-1	1
Worcester	8	—	—	—	—	—	1	—	—	—	3	—	—	4	2	—	—	—	1
Somerset	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—
Total Counties	257	0	39	10	628	5	102	0	0	0	52	0	0	17	72	2	34	—	50
Baltimore City	173	0	37	3	1353	1	205	0	0	0	59	0	0	2	86	29	414	—	24
State																			
Jan. 27-Feb. 23, 1956	430	0	76	13	1981	6	307	0	0	0	111	0	0	19	158	31	448	—	74
Same period 1955	391	1	35	40	125	2	229	1	1	0	549	0	0	35	121	7	515	—	99
5-year median	491	2	30	40	655	8	248	1	0	225	1	1	41	171	19	533	—	71	
Cumulative totals																			
State																			
Year 1956 to date	763	0	119	23	3465	9	545	1	0	0	192	0	0	36	325	50	991	—	173
Same period 1955	717	1	61	73	192	5	362	2	1	0	921	0	0	79	258	20	1105	—	177
5-year median	866	5	52	69	1085	15	403	3	0	397	3	3	93	319	38	1073	—	132	

m = meningitis, other forms than meningococcus

t = tularemia



# Blue Cross - Blue Shield



## BLUE CROSS AND BLUE SHIELD RATES AND BENEFITS

BY R. H. DABNEY\*

Changes in benefits and subscription rates for Maryland's Blue Cross and Blue Shield programs have been approved by the State Insurance Department and will go into effect on May 1, 1956.

The increases being made in Blue Cross rates reflect (1) the continuing rise in hospital costs, and (2) the additions and extensions of hospital care benefits. The rate increase is about equally applicable to each of these factors. Because Blue Cross provides basically *service benefits* (hospital service not dollar indemnities), rates must periodically be adjusted in line with hospital costs. The new benefits broaden and increase the scope of coverage in keeping with the changing pattern of hospital care.

The changes being made in the Blue Shield program are the result of many months of study and consultation with committees of doctors in various specialties, and reflect widespread subscriber demand and need for broader protection. Every effort has been made to eliminate inequities and inconsistencies in the fee schedules, and several new areas of medical coverage are being included for the first time. A small increase in rates is necessary for the additional benefits.

Before May 1st, all doctors will receive copies of the amended Blue Cross and Blue Shield certificates and other material which will explain the extended and new benefits in detail. In addition, you will receive a new Blue Shield Physicians Manual which will include the complete revised fee schedule and detailed information on all Blue Shield revisions and administrative procedures.

Set forth below is a brief summary of the principal changes in Blue Cross and Blue Shield benefits.

### BLUE CROSS BENEFITS

#### 1. Days of Care

For each Blue Cross subscriber, 30 days of hospital care benefits will be provided for each hospital

\* Executive Director, Maryland Hospital Service, Inc., Maryland Medical Service, Inc.

stay (provided successive stays are separated by at least 90 days) instead of the present 21 days. The \$3 credit days beyond 21 in the old certificate are being eliminated.

#### 2. Private Room Care

The new certificate will provide for a credit of \$10 toward the private room rate and full coverage of all other customary hospital services. Under the old certificate the benefit was \$7 per day toward the room charge and 75% of the charges for other services.

#### 3. Maternity Care

The benefit of \$75.00 toward the total hospital bill for normal delivery remains unchanged. Under the new certificate, however, regular service benefits will be provided for cesarean section, ectopic pregnancy and premature termination of pregnancy not resulting in childbirth.

#### 4. Newborn Children

The amended certificate provides regular benefits for a newborn child from birth for correction of congenital defects, serious birth injuries, major illnesses or injuries, or if the child weighs less than 2500 grams at birth. These benefits were not included under the old certificate.

#### 5. Mental and Nervous Conditions

Benefits for hospital care for mental and nervous conditions are being included for the first time, with a limitation of 20 days a year. These benefits will be available in member hospitals and in approved specialized hospitals in Maryland.

#### 6. Non-Member Hospital Care

Most hospital care for our subscribers outside Maryland is handled through reciprocal agreements with other Blue Cross Plans. In those few instances where care is provided in a non-Blue Cross member hospital, benefits for both in-patient and out-patient services are being increased.

### 7. Waiting Periods

The new certificate reduces the waiting periods (from effective date of membership) to 9 months for maternity care and conditions existing on the effective date, and to 6 months for tonsils and adenoids. In the old certificate, these waiting periods were 12 months.

### BLUE SHIELD BENEFITS

#### 1. Surgical Benefits

The entire surgical fee schedule has been reworked, with adjustments made to eliminate inequities and inconsistencies, and to provide for more realistic payments for the more difficult and complicated procedures. The provisions relating to benefits for multiple surgical procedures during one hospital admission have been broadened. Surgical benefits will be provided wherever performed, with a maximum applicable to surgery performed in a doctor's office.

#### 2. Medical Care

The in-hospital medical benefits are being extended to 30 days for each hospital admission (provided successive stays are separated by at least 90 days), an increase from the present 21. Also, the amended certificate provides an additional benefit of up to \$25.00 for *intensive medical care*, to be available for medical cases of a critical nature requiring unusual, repeated, or prolonged attendance by the physician during the first 48 hours in the hospital.

#### 3. Mental and Nervous Conditions

Medical benefits will be available for the treatment of mental and nervous conditions for a maximum of 20 days a year.

#### 4. Anesthesia Benefits

In the amended certificate, the anesthesia schedule is changed and is related to the surgical fee. The maximum has been increased to \$40.00.

#### 5. Consultation Benefit

The amended certificate provides a benefit of \$15.00 for one consultation in three different specialty fields during each hospital stay. Two consultations at \$10 each were previously allowed.

#### 6. Radiation Therapy

A schedule of benefits up to a maximum of \$150.00 is being included for the treatment of neoplasms by use of roentgen rays and by application or implantation of radium or radon. Benefits for a limited number of conditions other than neoplastic diseases are also included. These benefits will be available in or out of a hospital.

#### 7. Emergency X-ray

The new certificate includes benefits for diagnostic x-ray in a doctor's office for fractures and dislocations within 72 hours of an accident. The benefit is in accordance with a fee schedule limited to \$15.00 for each accident or injury.

#### 8. Oral Surgery

Benefits will be provided for oral surgery (except the general care or extraction of teeth) when these services are provided in a hospital by a doctor of dental surgery on the hospital staff.

#### 9. Waiting Periods

Under the new Blue Shield certificate, waiting periods (from effective date of membership) are reduced to 9 months for obstetrical care and conditions existing on the effective date, and to 6 months for tonsils and adenoids.

We believe that the revised Blue Shield certificate and fee schedule represents an important improvement in this prepayment program—for subscribers and doctors alike.

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## Book Reviews\*

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*Acknowledgment of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them.*

**Mental Hygiene in Public Health.** Second Edition, Paul V. Lemkau, M.D. The Blakiston Division, McGraw-Hill Book Co., Inc., New York, Publishers. Copyright 1955, 450 pages. \$8.00.

This book is the second edition, following the first by six years. Much of the work and the need for revision of the first edition occurred during the four years that Dr. Lemkau served as Chief of the Division of Mental Health of the Maryland State Health Department. Dr. Lemkau is familiar to us in Maryland and is well-known, nationally and internationally, in the fields of public health and mental health.

He divides his material into two parts. The first part deals with the place of mental hygiene in public health. Here, he presents problems and solutions on the group, local, state and national levels of mental hygiene in public health. He defines the roles of the various professional and non-professional personnel without confusing "public health" with "socialized medicine."

The author points out that public health is concerned not only with preventive measures, but the control of widespread disease in the community. The magnitude of this task precludes management at other than the governmental level. Sociologically, economically, and operationally this makes sense to this reviewer. From our point of view, it is to the combined and individual advantage of the patient, the private physician, the public health worker and the community, if the private man and the public health worker function as a team.

\* The reviews here published have been prepared by competent authorities and do not represent the opinions of any official bodies unless specifically stated.

In terms of mental health, the private psychiatrist is not only concerned with his patient's present illness, but also with the latter's mental hygiene, and the prevention of recurrences. The psychiatrist hopes for co-operation from the family, not only in being aware that the patient is "sick," but rather a re-orientation of their relationship to the patient and the patient's, to the family. The family is willing but they, in turn, are preoccupied with "what will the neighbors say?" The need for community education and family mental hygiene becomes evident. Here begins the huge task of the public health worker, and here the doctor gets his support. This situation is multiplied many times over in medicine: maternal; post-operative management; infant and child care; the chronically aged and ill, etc.

The second part deals with the development of the individual from the prenatal period through the period of old age. There are chapters in this section which are of particular interest to the general practitioner, the pediatrician (the period of infancy and preschool period), the geriatrician and the psychiatrist.

The author gives the book meaning and zest with liberal case histories; statistical material is relevant and not burdensome. The bibliographies offer encouragement to those who might be interested in further study. Summaries are provided at the end of each chapter.

Dr. Lemkau's task was ambitious and comprehensive, and he has been successful. The title is misleading in that this book is not just for the public health worker or the psychiatrist, but for workers in all fields of medicine, social service, psychology and education. It is recommended as current reading and as a book to be retained as a useful reference.

N.S.



# Woman's Auxiliary Medical and Chirurgical Faculty



MRS. ALBERT E. GOLDSTEIN, *Auxiliary Editor*

## A BRIEF HISTORY OF THE NATIONAL FUND FOR MEDICAL EDUCATION

MRS. GERALD W. LE VAN\*

The National Fund for Medical Education was established in 1949 by President Eisenhower, then head of Columbia University; former President Herbert Hoover, who is honorary chairman of the Fund's Board of Trustees; Dr. James B. Conant, then president of Harvard University and now Ambassador to West Germany, and other educators and business leaders.

It was set up at the suggestion of the American Medical Association, the Association of American Medical Colleges and the National Association of Manufacturers to help meet the crisis in medical education. The steady forward march of the medical sciences—bringing a flood of new teaching responsibilities and new opportunities for health promotion—was threatening to overwhelm our small network of medical schools. Most at stake was each school's teaching program—money needed to hold top faculty, to fill teaching vacancies, to initiate new courses to keep up with the progress of medical science. Traditional sources of income were not equal to the growing need.

Members of the Woman's Auxiliary to the American Medical Association have raised approximately \$170,000 for A.M.E.F. since 1952.

The Medical profession has donated more than \$4,000,000 since the organization of A.M.E.F. and the National Fund.

\* A message from the President of the Woman's Auxiliary to the Medical and Chirurgical Faculty.

## AIMS OF THE FUND

The Fund's purpose is to mobilize private financial support for the nation's eighty-one medical schools and to promote the following broad objectives:

1. Strengthen the nation's ability to survive by training a sufficient corps of skilled men and women to care for the people's health and medical needs.
2. Interpret the needs of medical education to the American public.
3. Encourage the development and advancement of constantly improving standards of medical education.
4. Preserve academic freedom for medical education.

## WHY NOT LET THE FEDERAL GOVERNMENT SUBSIDIZE MEDICAL EDUCATION?

To rely on Federal subsidies would be to invite government domination. It might come gradually, but nonetheless surely. The supervision of public monies required by law would necessarily limit teaching and research programs.

Academic freedom is absolutely essential to the full and free development of the medical sciences. Any curtailment of that freedom would hamper, rather than encourage, the spirit of restless enquiry out of which scientific progress grows.

If it becomes necessary for the schools to accept subsidies in the future, it is important that they be balanced by substantial private funds. It is even more important that a broad representative agency like the Fund, representing medicine, industry, and the public, be the link between medical education and private support.

## WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION

MRS. MASON G. LAWSON, *President*

200 Ridgeway

Little Rock, Arkansas

December 1, 1955

DEAR COUNTY PRESIDENT:

The Woman's Auxiliary to the American Medical Association has been asked to cooperate with the National Fund for Medical Education in the promotion of MEDICAL EDUCATION WEEK, April 22 to 28, 1956. The Advisory Committee to the Woman's Auxiliary to the American Medical Association has approved of the Auxiliary participating; and, subject to the approval of your advisory committee, we would like to enlist your cooperation and assistance.

This campaign will be organized on a county level with a co-ordinating committee to direct the details, so that overlapping of efforts and activities will be avoided. Each county medical society has been asked by the American Medical Association to appoint a representative from the society to initiate the formation of the committee, which will then elect its own chairman. We would like very much to have all county auxiliaries represented on this committee, and this letter is a request to you either to accept the position of representative from your county auxiliary or to appoint someone to serve as such. We need to have this information at once and will appreciate your sending it to MISS MARGARET WOLFE, Executive Secretary, Woman's Auxiliary, A.M.A., 535 N. Dearborn Street, Chicago 10, Illinois—either a note saying you will represent the Auxiliary in your county, or the name and address of the member who will.

MEDICAL EDUCATION WEEK program will have many facets, among which will be a fund-raising campaign known as "80 Dimes," and will be kept informed of the developments as they occur. If every Auxiliary member will do just a little toward this program, no one will have to be burdened with a big job. I know you share with me a great interest in the plight of our medical schools, and I feel confident you will do everything you can to help in the very worth while endeavor.

With kindest personal regards and my sincere thanks for your cooperation, I am,

Very sincerely,  
MRS. MASON G. LAWSON  
*President*

## THE WOMAN'S AUXILIARY TO THE WASHINGTON COUNTY MEDICAL SOCIETY\*

MRS. PHILIP J. HIRSHMAN†

The Woman's Auxiliary to the Washington County Medical Society is stressing the following in 1956:

### 1. Nurses Recruitment and Scholarships

The Auxiliary pays the tuition of one student nurse and furnishes \$10 per month to another student who needs financial aid.

We have cooperated with the Nursing Committee and the Supervisor of Nursing of the Washington County Hospital in their efforts to procure other scholarships for deserving students.

We have given teas for groups of prospective nurses who are taken on tours of the Hospital and Nurses Home.

### 2. The Washington County Hospital Library

Our Library Committee, at the request of the Medical Society, has made a functioning library

\* This is one of a series of reports from the Component Auxiliaries.

† President, Woman's Auxiliary to the Washington County Medical Society.

from practically no library at all. Medical publications were bound, books catalogued, and new books added as memorials for deceased members of the Medical Staff. Brass lamps and smoking stands were presented on Doctors' Day by the Auxiliary.

### 3. Children's Party

On May 8, the beginning of National Hospital Week, we gave a birthday party for all children born in the Hospital during May, 1954. Small prizes were given to twins, the baby weighing the most, and to the babies born on May 8. All the children received balloons and the parents and children were served refreshments.

### 4. We have cooperated with various organizations in the city and endorsed the safety campaign sponsored by the Junior Chamber of Commerce.

Our Chairman on Mental Health is a member of the Mental Health Committee of Hagerstown.

### 5. Our membership is 100%

Each new doctor's wife is invited as our guest, and called for by some member of our group, to her first meeting, introduced and welcomed by the entire Auxiliary. By stressing the social aspect at our meetings, we have gotten to know all of our members and had a good time.

## VA LAUNCHES NEW PROGRAM FOR LONG-TERM PATIENTS

The AMA Washington Letter, No. 84-47

The Veterans Administration has begun what it describes as "an advanced concept in the care of chronically ill veterans" in 30 VA hospitals. The program will be expanded to other hospitals as rapidly as they qualify. Dr. William S. Middleton, VA medical chief, explained the program provides "active rather than custodial care for those long-term patients in the VA hospital system who no longer need definitive hospital treatment, cannot return home, and lack the capabilities necessary for the new planned-living program in VA domiciliaries."

Dr. Middleton outlined these points in the newest program: (1) concentration of long-term patients in special sections of hospital, manned by specially qualified staffs, (2) for each patient, a planned maintenance rehabilitation to retain benefits of hospital care already given and to prevent development of any further disabilities, (3) section staff to gear a planned activity program to each patient's need for recreation and spiritual and social activities, and (4) periodic reviews of each patient's progress with goal of eventual discharge.

VA estimates the average age of some 110,000 veterans in VA hospitals is 48, in comparison with 38 in the veteran population as a whole. Currently there are 584,000 veterans age 65, while five years from now this group is expected, by VA estimates, to exceed 1,780,000.

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## COMING MEETINGS

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### WOMAN'S AUXILIARY TO THE BALTIMORE CITY MEDICAL SOCIETY

*Wednesday, April 11, 1956, 11:00 a.m.*

Faculty Building, 1211 Cathedral Street, Baltimore

The Role of Mental Hygiene Child Guidance Clinic in Teaching. J. Edmund Bradley, M.D., Professor of Pediatrics, University of Maryland School of Medicine.

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### THE COMMITTEE FOR THE STUDY OF PELVIC CANCER

RICHARD W. TE LINDE, M.D., *Chairman*

BEVERLEY C. COMPTON, M.D., *Secretary*

*Thursday, April 19, 1956, 5:00 to 6:00 p.m.*

Faculty Building, 1211 Cathedral Street, Baltimore

Sponsored by the Maryland Division of the American Cancer Society and the Medical and Chirurgical Faculty.

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### ANESTHESIA STUDY COMMITTEE

*Tuesday, April 23, 1956, 8:00 p.m.*

Faculty Building, 1211 Cathedral Street, Baltimore

Joint Anesthesia Study Committee of the Baltimore City Medical Society and the Baltimore City Health Department. (Slides used.)

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### MATERNAL MORTALITY COMMITTEE

HUNTINGTON WILLIAMS, M.D., *Chairman*

IRVIN M. CUSHNER, M.D., *Secretary*

*Thursday, April 26, 1956, 4:00 p.m.*

Faculty Building, 1211 Cathedral Street, Baltimore

Joint Committee on Maternal Mortality of the Baltimore City Medical Society and the Baltimore City Health Department.

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### THE MONTH IN WASHINGTON

Washington, D. C.—Bills that have been hanging fire in Senate and House Committees for over a year finally are getting attention as the Administration pushes its program for broader and more uniform medical care for the families of servicemen.

A new version of a bill was dropped in the hopper on the opening day of this session by Chairman Carl Vinson of the House Armed Services Committee. It was designed in part to supply answers to a number of questions growing out of earlier versions sponsored by the Defense Department. Actually it raised more questions, which only hearings and testimony from expert witnesses and debate on the floor of Congress can answer.

The bill (H.R. 7994) authorizes, as a matter of right, broad medical care for dependents of

the armed forces as well as of Coast Guard, Public Health Service and Coast and Geodetic Survey personnel serving on active duty. (The bill would authorize health insurance only for dependents of latter three services.) Separate bills have been introduced in the past providing medical care for dependents of Coast Guard, PHS and Geodetic Survey, but this marks the first time they are brought into the same bill with military personnel.

In provision of services, the bill has no surprises over its predecessors. It calls for diagnosis, treatment of acute medical and surgical conditions, treatment of contagious diseases, and maternity and infant care.

On another point of major interest to physicians, the bill drops out all mention of the home-town medical care plan, which was a part of Mr. Vinson's earlier bill. That bill contemplated use of civilian hospitals and doctors for those dependents who were not near military medical facilities and who had not taken out health insurance, with the government paying part of the cost.

Another area of almost certain debate in the latest bill is the insurance features. There are these main points:

1. A serviceman may elect to rely entirely on the chance of finding space available in a military hospital or clinic for his family, or he may choose protection through an insurance plan.
2. The family deciding on insurance has its choice of going to a military hospital or using civilian resources. The uninsured family could be charged by the military for out-patient care, and would have to pay subsistence costs while in the hospital.
3. A serviceman taking insurance would pay 30% of monthly premiums for a basic plan covering his wife and children, and the entire premiums for coverage of dependent parents and parents-in-law. Parents and parents-in-law who found space in a military hospital, however, would be admitted on the same basis as wives and children.
4. Catastrophic-type coverage, at additional premium.
5. To take care of long term illnesses, the bill provides for transfer of dependents to military facilities once they have used up benefits in an insurance plan. Or if such transfer isn't feasible, the government could pay the additional costs for private care.

The bill was introduced before the Defense Department had completed a survey of Blue Shield, Blue Cross and commercial plans to determine to what extent they could provide care under the bill. Conceivably the survey could further change the shape of an already much-revised piece of legislation.

President Eisenhower in his State of the Union message summed up the case for dependent medical care this way: "Much has been done to attract and hold capable military personnel, but more needs to be done." He also broadly outlined administration plans in the health field, with emphasis on more money for research and federal aid to medical schools and to private research facilities for construction. With bipartisan bills along this line already before Congress, these proposals may move right along before adjournment in mid-summer.

However, Congress might decide that for this year medical schools should settle for the \$90 million of Ford Foundation money being made available to private schools to help strengthen teaching staffs.

By the same token, there was some question just how much Congress would vote for Hill-Burton hospital programs this session in the light of the \$200 million Ford grants to some 3,500 non-profit hospitals.

A recent Public Health Service report indicates that states are now showing less preference for "public" Salk vaccine programs than they did a few months ago. The sixth allotment marked the high-point in "public" preference. Then came a slight but steady decline.